QL
690
S4.S45
Birds

Scottish Bird News

THE QUARTERLY MAGAZINE OF SOTBC

No 85 Sept. 2007

The invasion of tree mallow on Craigleith

SMITHSONIAN
OCT 29 2007
LIBRARIES

This article, by Rene van der Wal, is extracted from "The East Lothian Emeralds" edited by Ron Morris and Bill Bruce.

Most people will have viewed Craigleith as just a little island in the shadow of its more renowned neighbour, the Bass Rock. It is, however, currently the scene of Britain's most dramatic example of how a single non-native plant species can transform an entire ecosystem. In 2006, more than 75% of the island was covered by dense stands of tree mallow (*Lavatera arborea*), which left very little space for any wildlife or other plants. Of particular concern is the dramatic reduction in the number of breeding puffins, an iconic bird species of high conservation and economic value.

What is tree mallow?

Tree mallow is hard to miss. It is a tall plant which can grow up to 3 m tall, with attractive flowers and big woolly leaves. It is a Mediterranean-Atlantic herb of the mallow family (*Malvaceae*) and is mostly biennial, i.e. lives for two seasons; it germinates and forms leaves in the first year and flowers and fruits in the second year before dying off. Tree mallow is not part of the original Scottish flora but finds its home in more southern climes, particularly along the Mediterranean coast. Within the UK, it is only native along the southwestern coastal fringe, where it managed to survive the last ice age. Whilst some expansion has been observed by natural means from this area, most of its spread has been because of active planting. Tree mallow has long been cultivated in coastal gardens well outside its natural range from where it occasionally spreads into natural and semi-natural habitat, including the coastline and offshore islands of southeast Scotland. It is unclear whether its popularity as a garden plant in olden days is from the attractiveness of this tall, profusely flowering plant, or from its medicinal use as tree mallow leaves have been used for making compresses.

Demise of tree mallow as a popular plant

Currently, very few tree mallow plants are seen in coastal gardens and perennial species like the shrub *Lavatera cretica* seem to have replaced it. One of places where it has been introduced is the Bass Rock. Historical records, as far back as 1661, indicate that the plant has been in the Firth of Forth for a long time. Interestingly, tree mallow was seen as something special and Balfour wrote the following in 1847:

Tree Mallow and the view from Craigleith to Fidra
Rene Van der Wal

"Lavatera arborea, tree-mallow, velvet leaf, or Bass mallow, is the most important plant, in a botanical point of view, which grows on the Bass Rock [...] On the rocks below the fortification it grows in great profusion, and in the month of July it has a gorgeous appearance, with its rose-coloured flowers streaked with darker veins..."

Puffin and Tree Mallow *Anke Fischer*

SHOUT
SHARE
IT

Dense cover *Rene Van der Wal*

In those days tree mallow was a rare plant and, according to Jamieson in 1912, Ailsa Craig was its only other major Scottish location. There are also historical records of it growing on Inchgarvie and Inchmickery, two other small islands further up the Firth of Forth.

We do not know when tree mallow got established on Craigleith, but the first written record is from 1966 by Beattie, who saw the species as a welcome addition:

"*The glory of Craigleith is the abundance and luxuriant growth of Lavatera arborea.*"
Recent analysis of aerial photographs suggests that the cover of tree mallow on Craigleith was less than 5% before 1960 but has expanded exponentially to now cover most of the island. The plant seems to have lost its original appeal, largely because of its overabundance with a strong negative effect on the charismatic puffins, attracting newspaper headings such as "*Alien plants could kill off puffins*" (A. Dalton in The Scotsman, 31 Aug 2005) or "*Puffins being wiped out as shrub chokes nesting sites*" (R. McKie in The Observer, 18 Dec 2005). Clearly, tree mallow on Craigleith is currently seen as too much of a good thing. This was confirmed in autumn 2005 when a social-scientific study was carried out among inhabitants of, and visitors to, North Berwick in which tree mallow was viewed nowhere near as positive as puffins (for more information see Fischer and Van der Wal 2007, Biological Conservation 135, pp 256-267). Interestingly, the majority of respondents (75%) did not consider tree mallow as a 'new' species and therefore seem willing to accept the species as part of the natural scene, despite the fact that biologically it is non-native to Scotland.

In addition to Craigleith and the Bass Rock, tree mallow is present on some of the other islands in the Firth of Forth - currently Inchcolm, the Lamb and Fidra. A few plants can be found in North Berwick's gardens and along its coastal fringe. Only on Craigleith and Fidra, however, is the species truly invasive. A three-year study carried out between 2004 and 2007, funded by the British Ecological Society, Scottish Natural Heritage and the Scottish Executive has revealed why tree mallow turned invasive on these islands and what consequences this had for the native vegetation and breeding birds.

Why tree mallow turned invasive

Tree mallow may appear to be a strong, successful plant, but it is actually relatively rare for several reasons. It does not cope well with frost or grazing by animals and needs very nutrient-rich soil. What it is good at is to tolerate salt-water spray. However, further away from the coast where plants do not live under salt stress, numerous other plant species readily out-compete it, and this is thought to be the reason why tree mallow almost exclusively occurs directly along the coast. Our research demonstrates that tree mallow has become invasive in parts of the Firth of Forth because of three human-related factors that collectively have removed conditions that otherwise keep tree mallow in check.

First, up to the late 1950s, Craigleith had a large population of rabbits, originally introduced for human consumption. We do not know since when rabbits have roamed this island, but records for the nearby Isle of May go back as far as 1329 whilst a later arrival has been suggested for on the Bass.

Apart from humans, the rabbits on Craigleith had no mammalian predators and grazing pressure was probably sufficiently intense to prevent any increase in tree mallow, irrespective of the prevailing climate or nutrient levels. We found that tree mallow seedlings taken from Craigleith and exposed to grazing by rabbits in field trials near Banchory, Scotland, were all either browsed or dug out, mostly within 12 days. According to Sir Hew Hamilton-Dalrymple, the pan-European outbreak of *Myxomatosis*, a human-introduced viral disease, reached Craigleith in the late 1950s. As a consequence, the rabbit population rapidly died out thus removing grazing pressure, one of the restrictions on tree mallow growth. ***Continued on Page 7***

Tree Mallow blossom *Rene Van der Wal*

Scottish Bird News No 85 Sept 2007

Edited by
Jimmy Maxwell
Ian Francis

Assisted by
Jean Torrance
Wendy Hicks

Contents

The invasion of tree mallow on Craigleith	1
News & Notices	3
Death of a Whitefront: 6CA RIP	9
The National Biodiversity Network sharing information about wildlife	12
Art within the Muirshiel Hen Harrier Project	15
Mixed bag for Scotland's Birds in 2006	16
Aberdeen Red Kites	17
Bird photographs – a personal angle	18
Ornithological Folklore 2. The Nightjar	19
Notes & Comment	19
Book Reviews	21

Contributions for the next issue of *SBN* should be submitted not later than 24th October 2007 to:

***SBN* Editor, SOC, The Scottish Birdwatching Resource Centre, Waterston House, Aberlady, East Lothian EH32 0PY.**

Articles can be sent on disc or by e-mail (mail@the-soc.org.uk), although we do still accept typed or handwritten material.

Designed by
Harry Scott, Pica Design, Aboyne

Printed by
Meigle Colour Printers Ltd, Galashiels

NEWS & NOTICES

New SOC Members

We welcome the following new members of the club: **Ayrshire** Mr P Wheatland, Mr W Thomas Yeudall, **Borders** Mr P J Delaney, Mr A Harkness, Mr R J Morris, Mr & Mrs A J. Withers, **Caithness** Miss C Nicol, **Central Scotland** Mr G McShane, Mr M A Robinson, **Clyde** Mr & Mrs N Davidson, Ms S S Davies, Mrs I Dew, Ms D Gray, Mr I MacRae, Mr D Mitchell, Mr A Ogilvie, Mr S Riddell, Mr R H C Stang, Mr M Ward, Mr H Young, **Dumfries** Mr & Mrs R Culver Curry, Mr I H Gilmour, Mr D McFadzean, Mr D Watson, **England, Wales & NI** Mr S Aris, Mrs I Boston, Mr J Vernon Colhoun, Mr M Durney, Mr & Mrs G D Emsden, Father D Fairweather, Mr I Farrell, Mr S Glue, Mr S O Hart, Mr & Mrs R Hurl, Ms J Jeans, Mr & Mrs H Moncrieff, Mr A John Moore, Mr G Penton, Dr E T Roberts, Mr & Mrs Ryan, Mr R W Scott, Mr R Smith, Mr A Szopa-Comley, Mr J Todd, Mr P Ullrich, Mr D Waudby, **Fife** Mr A Carpenter, Mrs A Elphinstone, Mr & Mrs R Firth, Mr S MacDonald, Mr I McLean-Baird, Mr J O'Reilly, Mr & Mrs R M Warrack, Mr & Mrs H Wix, **Grampian** Mr P Chapman, Ms A Grant, Dr R J Mitchell, Mr & Mrs K Whyte, **Highland** Mr & Mrs Esson, Ms S E Evans, Mr G Jackson, Mr J Willet, **Lothian** Mr B Bruce, Ms M Cook, Mr & Mrs I Copland, Mr C Davison, Mr I H Elfick, Mr D B Forrester, Ms L Hearton, Mr M Hill & Ms R Carthy, Mr W Mitchell MacNiven, Mr C Bruce McClory, Mr & Mrs N McIntosh, Mr J Park, Ms H T Riley, Mr P Snaith, Ms M Ward, Mr R Whyte, Prof & Mrs D F Wright, **Overseas** Mr S H Naismith, **Scotland - no branch** Mr A Gerrard, **Tayside** Mr R Cain, Mr D Jackson, Mr M Jamieson, Mr D Mitchell, Mr C Twist, **West Galloway** Ms C Walton.

200 Club

The latest prizewinners are – **June: 1st** £30 Miss J. Wilcox, **2nd** £20 F.D.Hamilton, **3rd** £10 A.B.K.Ramsay. **July: 1st** £30 Miss J. Wilcox, **2nd** £20 A. Duncan, **3rd** £10 Dr. Campbell. **August: 1st** £30 J.F.Cross, **2nd** £20 Dr Napier, **3rd** £10 Miss S. Hunter.

New members are always welcome. They must be over 18 and Club members. Please contact – Daphne Peirse-Duncombe, Rosebank, Gattonside, Melrose, Roxburghshire TD6 9NH.

Aberlady Primary School
Moor Road
Aberlady
East Lothian
EH32 0RQ

Friday, 8th June 2007

Dear Wendy,

We are writing on behalf of Miss Strang and the rest of P3/4 to thank you for letting us visit Waterston House yesterday.

We had a lovely time and really enjoyed seeing John Busby's paintings. We are very lucky as he is coming to speak to us at school next week. Thank you too for giving us the postcards and pencils for our drawings. We will show them to Mr Busby next week. We hope he likes them.

Thank you again for welcoming us yesterday. We hope that we can visit you again.

Yours sincerely,

Jack O'Malley
Eli Sinclair-McNally

Jack O'Malley and Eli Sinclair-McNally

The SOC and education

This letter (left) came from classes in Aberlady Primary School following an art visit to Waterston House. The SOC seeks to create this kind of opportunity where children can meet such a great Scottish wildlife artist as John Busby and enjoy working with him.

Scottish Bird News – what do you think?

In *SBN* 83 (March 2007), we asked what you, as SOC members, thought about the newsletter and requested your views on a number of questions. We would like to thank the 98 members who replied (just over 4% of the membership), and this article summarises the main findings.

Electronic or not?

Most replies were on the paper form, with 18 replies via the website. The 'electronic' issue was one that we were keen to explore – to what extent should we plan to issue *SBN* by email or on the website in future? 32 people replied to this question, with most (21) not wanting an electronic version. The eleven who were happy with the idea mostly wanted it as an option, or being sent direct by email rather than just placed on the website. The message was clear from this – *SBN* will continue to be produced on paper, though we may offer an emailed option at some stage. At the moment, some past issues of *SBN* are available on the SOC website at low resolution, and we intend to continue to do this, as a publicly available archive and as a way of promoting the SOC's publications. We thank Stephen Hunter for his work on the website, so making all this possible.

***SBN* subject content**

Overall, most respondents (70%) were 'quite' or 'very' happy with the main subject areas covered in the newsletter, but there were some clear favourites and some subjects which found less favour. Popular front runners were articles on bird species, birding areas, the behaviour and observations section, and articles on reserves, bird conservation and surveys. These will continue to be the mainstay of *SBN*. Least popular article types were those on bird artists, other wildlife subjects, conferences and SOC groups. We will certainly review these and respond to the opinions expressed. However, every subject area had its supporters and opponents – and the 'Recent Reports' section brought this out most starkly, with those who value its overview and those who think it is of limited value as they see similar reviews in other publications. At present, though, we are not able to include this as we have not been able to find a suitable author. Overall, in future we will try to include more content that reflects its popularity, but we always seek to be innovative and try new things. To that end, we thank the 47 respondents who suggested further subjects to include. The five offers of actual articles were fewer than we had hoped, though several others offered photographs, or to write reviews. We do still urge all SOC members to write for *SBN* – it is always a hard job to find enough varied material for each quarter, and it is really not difficult!

Most respondents felt that both the writing style and photograph content were about right (80% and 77% respectively), though inevitably there were polarised views (e.g. "keep the style popular" and "keep up the standard of scientific content" or "more photos would be good" versus "the fewer the better")! We will endeavour to keep the balance as it is.

General comments

There were many useful general comments, some ranging more widely into the nature of the SOC and what it offers to its members. Several felt that *SBN* should first and foremost reflect Scotland and its birds, and treat different parts of Scotland fairly. This we shall always try to do, though as noted above, in part, coverage of different areas does reflect availability of material. The relationship between *SBN* and '*Scottish Birds*' was also mentioned, with suggestions of scope for better integration. Most people felt that receiving *SBN* was one of the great benefits of SOC membership, so we hope that we can maintain the standard that enables this to continue. Finally, we received many detailed suggestions for small-scale improvements, which we shall implement. Other requests were harder to reconcile – for example, "is there any use in listing new members?" and "I like the listing of new members – keep it up"! Clearly, sometimes editing newsletters and keeping everyone happy requires the achievement of the impossible...but we are always keen to hear your views. Please send any further suggestions or comments to the editors at mail@the-soc.org.uk

Ian Francis & Jimmy Maxwell

An Appreciation

I was sad to see Dr Pam McMorran's obituary notice in the current issue of *Scottish Birds*.

One aspect of her enthusiasm for ornithology missed in the obituary, albeit a fairly minor one, was her donation, over many years, of a range of interesting bird corpses to the National Museums of Scotland for preparation as skins for the national collections. A couple of examples from Caithness were Brunnich's Guillemot (January 1976) and Yellow-billed Diver ((January 1979).

At any one period, the NMS Bird Section has a 'core group' (a relatively small number) of donors of corpses - generally unsung supporters; Pam was one of this group.

Bob McGowan
Senior Curator, Birds, National Museums Scotland, Chambers Street, Edinburgh EH1 1JF

Mapping Scotland's birds: The 2007 - 2011 Bird Atlas project

Over the next four years an ambitious and important project will take place to map the distribution of Britain and Ireland's birds, both in winter and during the breeding season. In Scotland this will be a partnership project between the SOC, the British Trust for Ornithology (BTO) and Birdwatch Ireland (BWI). Bob Swann, a well known and long standing SOC member, has been appointed as Scottish Organiser for the project. Here he discusses the first phase of the project, the winter atlas which starts on the 1st November 2007.

As birdwatchers, many of us are interested in bird numbers, distribution and change. For instance we are intrigued by questions such as, "what is the commonest bird in Scotland", "which species is most widespread" or "which has declined or increased the most in recent years". One way to answer these questions is by mapping the distribution of birds in both summer and winter. The last, and in fact only time that the winter distribution of birds was mapped on a national scale was over 20 years ago between 1981 and 1984. A lot has changed in the countryside since then. How will this have affected the numbers and distributions of our wintering birds?

Changing landuses

Intensification of agriculture led to major declines in farmland birds, like Linnets and Corn Buntings, in many parts of Scotland over the last 20 years. How then have winter distributions of the species changed? The previous winter atlas showed Skylarks to be widespread over much of lowland Scotland, particularly in the central lowlands and the northeast. Is this still the case? What about scarcer species like Twite? A survey this winter on agricultural land in northern Scotland found very few Twite flocks. Is this a general decline or have they switched to new wintering areas?

Twite *Linda Baillie*

Our woodlands are also undergoing change. Young forestry plantations have now become mature woodlands. How will this affect the winter distribution of woodland specialists like Great Spotted Woodpeckers and Siskins?

Garden feeding
As food has become scarcer in the countryside, more and more birds appear to be attracted to winter feeding sites in urban and suburban areas. Will this alter the winter distribution and abundance of common garden feeders such as House Sparrows and Collared Doves? What about species like Goldfinch? Is an increase in winter feeding allowing these birds to winter further north in recent years.

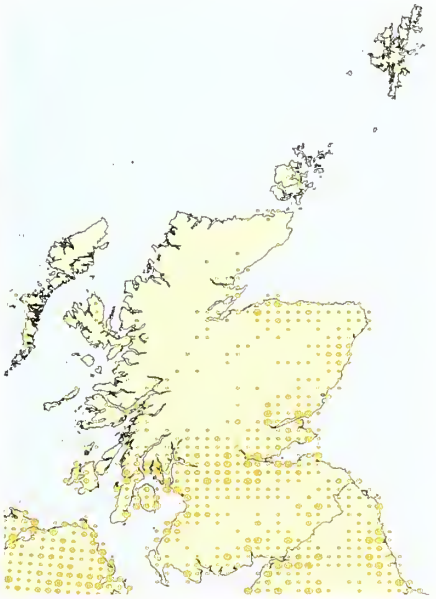
Climatic change
Perhaps the biggest factor affecting our wintering birds over the last few years is climatic change. As temperatures rise and winters appear to get milder and wetter, bird distributions will undoubtedly change. More and more traditional summer visitors now appear to be over-wintering in Scotland. Twenty years ago, only a handful of Chiffchaffs were recorded by the winter atlas in Scotland - what is the situation now? Pied Wagtails are a typical partial migrant, with the northern populations moving out to winter further south, whilst the more southerly populations remain resident throughout the winter. Is this still happening, or are more of these birds remaining with us all year round?

Pied Wagtail *Jill Pakenham*

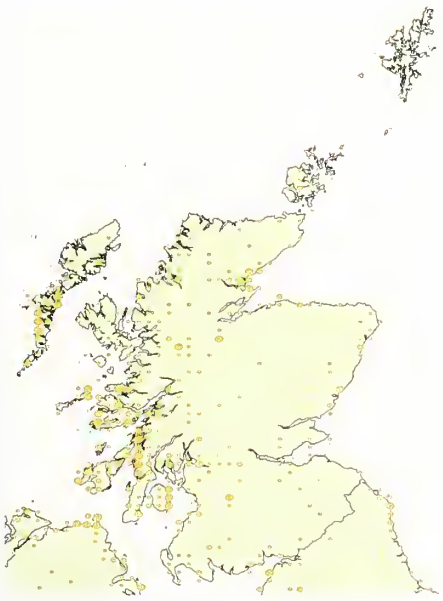
What about the true winter visitors? There appear to have been some interesting redistributions taking place in recent years. Virtually the entire Icelandic population of Greylag Geese winter in Scotland. In the 1950s and 1960s, most wintered in central and southern Scotland; by the 1980s northeast Scotland was the core of the wintering area, but by 2007, over 60% of all Icelandic Greylags were wintering in Orkney. Are other wildfowl showing similar trends? - the new winter atlas should tell us. Our firths hold internationally important concentrations of wintering wildfowl and waders. Most of these arrive from high arctic breeding grounds to spend the winter at milder latitudes. There is some evidence that many of these birds are remaining to winter further north, closer to their arctic breeding grounds. How will this affect the current winter distribution and abundance of species like Turnstone, Purple Sandpiper and Dunlin in Scotland?

The number of winter visitors from the nearby continent such as Blackbirds, Fieldfares, Redwings, Starlings and Bramblings may also be altering. It is important for conservation organisations to have data on the current situation regarding these species.

Even within Scotland distributions are likely to be changing, for instance many upland species move to winter in adjacent lowlands. As temperatures rise, will more Meadow Pipits or Stonechats remain to winter on the hills and will that mean more raptors wintering there as well? A classic example is Snow Bunting. The 1980-84 winter atlas showed large numbers wintering in the hills and along the coast. Coastal populations appear to have declined drastically. Are there now more in the hills or are more just remaining to winter further north closer to their breeding grounds in Iceland and Scandinavia?



Winter Pied Wagtail

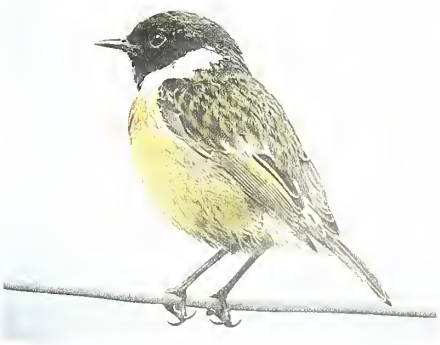


Winter Stonechat

Methodology
In order to ascertain the current winter distribution, all species will be mapped by 10km squares, using the grid system found on Ordnance Survey maps. Two complementary methods will be used. The first involves gathering *Roving Records*. The aim here is to record full species lists for each of the 1101 10km squares in Scotland. All that is required is a list of the birds seen in each 10km square. This can be obtained by a specific atlas visit to a square to find as many birds as possible, but equally well it could just be a list of birds seen when out birding, out walking the dog, or even something seen whilst driving through a square. Every record counts and the data can easily be submitted online by visiting www.birdatlas.net or more traditionally on paper on a *Roving Records* form. These forms will be made widely available at all SOC meetings or can be posted to you from SOC or BTO headquarters. If you supply bird lists to projects like BirdTrack or the Garden BirdWatch, these will be automatically fed into the atlas database, so the good news is that they do not need to be submitted twice!

As well as mapping the overall distribution of our wintering birds, we also need to map their relative abundance. In winter many species, for instance Starlings, are widely distributed throughout Scotland. In some areas they are relatively common, being found in large flocks, whereas in other areas they are relatively scarce. From a conservation point of view it is important to know where the main concentrations are. For other species such as Waxwing and Brambling, we should also be able to see how distributions and abundance varies from one winter to the next.

In order to work this out we need to use a different method. This is the *Timed Tetrad Visit* (TTV). Each 10-km square is composed of 25 tetrads (2x2km squares) of which eight will need to be sampled. The aim is to do two hours field work in each of the sample tetrads. The first hour should be done early in the winter (November and December) and the second late in the winter (January and



Stonechat *Linda Baillie*

February). Typically each visit will involve a walk through the tetrad visiting the main habitat types. A note is kept of all birds seen or heard and a tally count kept of the numbers encountered. It is not necessary to find every bird in the tetrad! We are trying to see how abundant each species is. If a species is very common, it is likely you will come across quite a few in each tetrad you visit. If it is scarce then you may only come across one in all visits to all tetrads in your 10-km square.

Turnstone *Derek Belsey*

In order to help out with the *Timed Tetrad Visits* you need to contact your local organiser. This can be done by logging onto www.birdatlas.net and clicking on "taking part", then "Your Regional Organiser". Otherwise contact Bob Swann (details below) who will put you in touch with your organiser. You can then volunteer to cover as many tetrads as you wish in as many 10-km squares as you wish. Remember the project will run over four years and each of the eight tetrads just has to be visited ONCE (for two hours in the winter, and two in the breeding season) during the course of the project and not every year.

So given we have already had three previous atlases, and have regular monitoring through surveys like Breeding Bird Survey, Wetland Bird Survey and bird recording through BirdTrack, why do we need another atlas? It's important to remember that long-term surveys such as the WeBS are sample surveys and provide us with information on trends in populations. They do not aim to cover all of Britain and Ireland; rather they aim to have a good geographical spread of survey sites. Atlases give us the opportunity, about every 20 years, to visit all 10-km squares in Britain and Ireland and tell us the birds that are there and approximately how common they are. It's a snapshot of bird distribution and abundance in time.

It is going to be a massive project. Getting full coverage of Scotland, particularly in winter, with short days and unpredictable weather is not going to be easy. The effort is, however, going to be very worthwhile. Not only is atlasing fun, it gets you out into new areas, finding new sites and new birds; it is also a good way of putting something back into your birding. The results from this atlas will be the basis for the conservation of birds in Britain and Ireland for the coming decades. Your effort will help conserve Scotland's bird populations for years to come. So get in touch with your local organiser and adopt a 10-km square now.

Bob Swann
Scottish Organiser, Bird Atlas project.
Contact at bob.swann@bto.org or on 07919 378876

BIRD ATLAS 2007-11:

Agreement between the British Trust for Ornithology and the Scottish Ornithologists' Club concerning ownership and use of data collected in Scotland

1. The dataset for Scotland shall be owned jointly by the British Trust for Ornithology (BTO) and the Scottish Ornithologists' Club (SOC).
2. During the development of the project (November 2007 to June 2012), the master dataset of Bird Atlas 2007-11 will be held by the BTO. A complete electronic copy of the final verified master biological database for Scotland will be provided by BTO to SOC at the end of the project (by June 2012).
3. Personal data of those contributing online and paper records for Scotland (where permission has been granted) will be provided to SOC at the end of the project (by June 2012).
4. SOC can use the data for Scotland for any policy development, promotional or publicity purposes that it sees fit. SOC can incorporate data from Bird Atlas 2007-11 for Scotland into any archives for Scottish bird records subject to any provisions within this agreement.
5. Should SOC wish to pass on Atlas records (or data sets that contain Atlas data) to any third party it will seek prior agreement of BTO. A policy for the relationship between Bird Atlas 2007-11 and the National Biodiversity Network will be established by the BTO (in discussion with SOC). Provision of data must be subject to any restrictions concerning confidentially submitted records.
6. BTO (rather than SOC) will normally undertake research using data from Bird Atlas 2007-2011. BTO will inform SOC about any major uses of atlas data relating specifically to Scotland.
7. SOC will be free to use the data for such things as regional avifaunas, providing this does not pre-empt the publication of the Bird Atlas itself.
8. Atlas recording forms used in Scotland will carry the address of the SOC Headquarters (Waterston House, Aberlady). All paper recording forms will carry the logos of the BTO, BirdWatch Ireland and the SOC. Publications concerning the atlas will state that the atlas is a joint BTO/BWI/SOC project and the final publications will carry the logos of each organisation.
9. The Atlas Organiser for Scotland (employed by the BTO and based in Scotland) will maintain close contact with the SOC and make periodic reports to its officers and Council concerning progress.

Signed on behalf of BTO
Date: 18 March 2007

Signed on behalf of SOC
Date: 18/03/2007

SBRC nomination

The Scottish Bird Records Committee has an annual changeover each November when one member retires. This year it is Roger Riddington , who has been a great asset to the committee, both in terms of his expertise and his helpfulness. He has always been willing to advise and pass on his many years of experience in a very thoughtful manner - a difficult person to replace!

As is the usual practice, SBRC's candidate for his replacement comes from Shetland, and the name of Mark Chapman is being forwarded as our nominee, although obviously nominations are open to anyone within the SOC to take up. Mark has many years of birding experience and, as is customary from the ranks of Shetland birders, possesses a wealth of knowledge on the birdlife of that region. As a well-travelled birder, we feel he will be ideally suited to replace Roger in November

Continued from Page 2

The second human-related change that aided the spread of tree mallow was a rise in winter temperature and associated decrease in the number of days of frost that occurred in the area, particularly from 1982 onwards. The total number of frost days per year declined by 32% and the average daily minimum winter temperature (i.e. October-March) increased by almost a degree. We found in field experiments that tree mallow seedlings are highly sensitive to periods of prolonged frost, with very few plants surviving more than 90 hours of frost. Out of nine locations in east Scotland, seedlings in North Berwick performed by far the best, suggesting that the current local climate is ideally suited to tree mallow growth and survival.

The third change favouring the tree mallow was the increase in the number of seabirds on the island. In the early days, Craigleith was seen as relatively unfertile as Dickson wrote in 1899:

"There is little vegetation upon Craigleith, although a few rabbits manage to obtain a somewhat precarious sustenance."

In the 1960s, however, this seems to have changed, largely due to the increase in the number of gulls, which were benefiting from the additional food supply from fish discards and open landfill sites. In 1966 Beattie wrote:
"Because of its steep, rocky sides, and barren look, one is totally unprepared for the luxuriant growth of vegetation which clothes the top. There are parts where erosion occurs from the too rich guano..."

Perhaps even more influential, however, has been the arrival of the Atlantic puffin and its subsequent expansion to about 28,000 pairs by 1999. Again this was linked to human activity with the population rise caused by greater availability of small fish for seabirds because commercial fishing has reduced the North Sea's stocks of the larger, predatory fish. Seabirds bring in a lot of nutrients in the form of faeces and are the most likely cause of the relatively nutrient rich soils on Craigleith (60% higher, for instance, than on nearby Inchcolm where seabird numbers are much lower), creating ideal conditions for tree mallow which needs highly fertile soils.

View from Craigleith to the Bass Rock *Rene Van der Wal*

Whilst soil enrichment probably played an important role in tree mallow growth, seedling establishment is greatly helped by the burrowing activities of the puffins. The entrances to their burrows are ideal for tree mallow seedlings because they are moist, fertile and free of competitors. In areas not yet invaded by tree mallow, the overwhelming majority of seedlings establish in puffin burrow entrances or ground otherwise disturbed and fertilised by these birds, rather than in the dense grass swards. Therefore, the expansion of puffins on Craigleith played a major role in the expansion of tree mallow by providing ideal germination sites and nutrients for plant growth.

Consequences of tree mallow expansion

While tree mallow has benefited from the initial increase in puffins, the plant invasion eventually suppressed their numbers breeding on the island. The dense growth of tall, woody plants in the breeding colonies hinders access to nest sites resulting in their abandonment. Thus, while puffin numbers elsewhere in the Firth of Forth continued to increase, numbers on Craigleith declined dramatically from 28,000 burrows in 1999 to only 12,100 by 2003, as reported in Harris and co-workers in 2003 (for more information see Atlantic Seabirds 5, pp 101-110). A pair of puffins uses the same burrow for years on end, as making such a structure (which is frequently more than 2m long) is a major investment in time and energy. A thin cover of tree mallow does not prevent puffins from breeding, but greater densities do cause problems. The density of burrows in puffin colonies on Craigleith may be as much as one burrow per square metre, whilst under tree mallow it is only a third of this (i.e. 1 burrow per three square metres). Areas with more than 40% tree mallow cover are almost completely devoid of breeding puffins. In these areas the numerous old, neglected burrows, full of partly decomposed mallow stems, indicate use by puffins in the past. That the low density of intact burrows is indeed due to tree mallow expansion was demonstrated in field experiments: within three years puffins were returning to the small (3m x 3m) trial clearings, with greatest returns in areas where the tree mallow had been most dense.

Similarly, populations of other ground-breeding birds declined during the last 20 years because their breeding habitat

The vegetation after two seasons of Tree Mallow removal *Rene Van der Wal*

The human "invasion" *Rene Van der Wal*

became unsuitable due to tree mallow expansion. For example numbers of eider duck declined by more than 90% and herring and lesser black-backed gulls together decreased by more than 50%.

Although the numbers of cormorants have not dropped, encroaching tree mallow has pushed the breeding colony right to the southeastern edge of the island. Here, tree mallow is sufficiently short for breeding because of sun and wind stress. Cormorants are one of the few species of breeding birds that actually make effective use of tree mallow, in that their nests are almost exclusively made out of dead mallow stems.

Tree mallow invasion not only influences ground-breeding birds but also completely changes the island's ground vegetation. Perennial grasses, notably red fescue (*Festuca rubra*) and Yorkshire fog (*Holcus lanatus*) cover most of the ground (89%) in the few remaining places without tree mallow. Dense stands of tree mallow smother any pre-existing vegetation with its litter. Ground cover under tree mallow is therefore more than an order of magnitude lower (6%) with very few perennial species but a sparse cover of annual-meadow grass (*Poa annua*) and wall barley (*Hordeum murinum*). The virtual absence of perennial ground vegetation under dense stands leaves the soil sensitive to erosion during autumn and winter when mature tree mallow plants die back. Small-scale removal of tree mallow has resulted in a tripling of ground cover within three years (27%), demonstrating that the presence of tree mallow is indeed the cause of sparse ground cover on the island.

Working towards a management plan

Whereas the dominance of tree mallow and low puffin numbers may be seen as undesirable, one may view Craigleith, as it currently stands, as a unique ecosystem which, as far as we know, is only found on a handful of islands in Australia, France and in the Firth of Forth.

To find out whether local people and visitors of the region would see intervention on Craigleith as desirable, a social-scientific study, led by Dr. A. Fischer of the Macaulay Land Use Research Institute, was conducted in autumn 2005. More than 180 residents of East Lothian and 60 visitors took part in a survey, giving their views on the spread of tree mallow and the resulting decrease in breeding puffins on Craigleith. Most respondents felt that tree mallow should be managed on Craigleith to create more breeding space for puffins, but in such a way that the island's ecosystem would not be put at risk. Many people preferred the tree mallow to be cut step by step, as this is the least intrusive and does not cause irreversible changes which might be the case if pesticides or rabbits were used. For most people who favoured intervention an important argument was that the balance between the island's flora and fauna should be restored. These views have played an important role in the development of a management plan for Craigleith.

These views have formed an important part in the development of a management plan for the island. It was drawn up in August 2006 as a first step towards developing a long-term strategy for tree mallow control and biodiversity management on the island. This document sets out how to create and maintain large zones on the island where tree mallow is no longer a hindrance to puffins or native vegetation. Previous testing of tree mallow removal through cutting, the management option favoured by members of the general public, showed that both puffins and native vegetation reappear in both small-scale (i.e. 9 m^2) experimental plots as well as in larger scale (i.e. ± 300m^2) pilot areas. These experiments highlighted that soil erosion, a major concern since soil loss would be irreversible, only occurred on the dry south side of the island. It became also very clear that growth from the seed bank could be a major challenge and that management action requires following up for many years to prevent re-establishment of tree mallow after cutting.

Each year a large area will be identified and local volunteers will help to clear this area and to maintain previously cleared areas. Monitoring will allow evaluation of whether intervention has the desired positive effects without the occurrence of major side effects. The plan aims to have the majority of the island free of tree mallow within five to ten years, after which low-level maintenance should keep the island in an ecologically favourable state. Complete removal of the species is unrealistic and, judging from its historic appeal, is perhaps not desirable. A management group is set up to oversee the implementation of the plan and consists of the landowner and representatives from Scottish Natural Heritage, the Scottish Seabird Centre, its volunteer group and a research scientist.

The start of large-scale tree mallow control helped by the media

The private television company RDF Media were filming a series of documentary programmes called 'Wild Thing I Love You', in which comedian Bill Bailey and his team investigated and tried to rectify wildlife problems around the country. They became aware of the diminishing population of puffins on Craigleith and this became the subject of an hour long programme which was shown on Channel 4 on 26 November 2006.

The programme portrayed the reasons behind the decline of puffins on Craigleith based on previous work and organised two days of tree mallow cutting in early September 2006. There will have been very few days in history, if any, with so much activity on Craigleith: 15 film crew and up to 35 volunteers to cut tree mallow, a large tent for shelter and refreshments, diving services installing a temporary landing and six different boats with skilled skippers to get all the people and equipment safely onto the island. The result was a documentary revealing some of Craigleith's fascinating aspects to 1.8 million viewers.

The aim of this first large-scale exercise was to remove tree mallow from two areas which together make up about 10% of the island's surface.

A large number of people have now volunteered to help with further work to reduce the tree mallow and so create space for puffins and other ground-breeding birds.

The spread of tree mallow due to human activities has taken us by surprise, and without doubt this 'Emerald' will have more surprises for us in the future.

References:

Fischer A, Van der Wal R (2007) Invasive plant suppresses charismatic seabird - the construction of attitudes towards biodiversity management options. *Biological Conservation*, **135**, 256-267.

Harris MP, Wanless S, Murray S, Leitch A, Wilson LJ (2003) Counts of Atlantic puffins Fratercula arctica in the Firth of Forth, South-East Scotland in 2003. *Atlantic Seabirds*, 5, 101-110.

René van der Wal
Aberdeen Centre for Environmental Sustainability, Macaulay Institute & University of Aberdeen
(r.vanderwal@abdn.ac.uk)

Death of a Whitefront: 6CA RIP

Isungua - Greenland Whitefront breeding area *David Stroud*

News of the death of 6CA, a Greenland White-fronted Goose shot in southern Iceland in autumn 2005, brought more than a tinge of sadness to all who had travelled to west Greenland in summer 1989. We were there to catch Greenland White-fronted Geese and it was the first time that we planned to use neck collars in Greenland. Geese caught and fitted with collars at Wexford Slobs by the Irish National Parks and Wildlife Service since winter 1982/83 showed that these were not only benign, but much more conspicuous and easier to read than the leg rings we had used during our 1979 and 1984 Greenland expeditions. In 1989, we had decided to try and catch birds and mark them using this method for the first time on the breeding grounds.

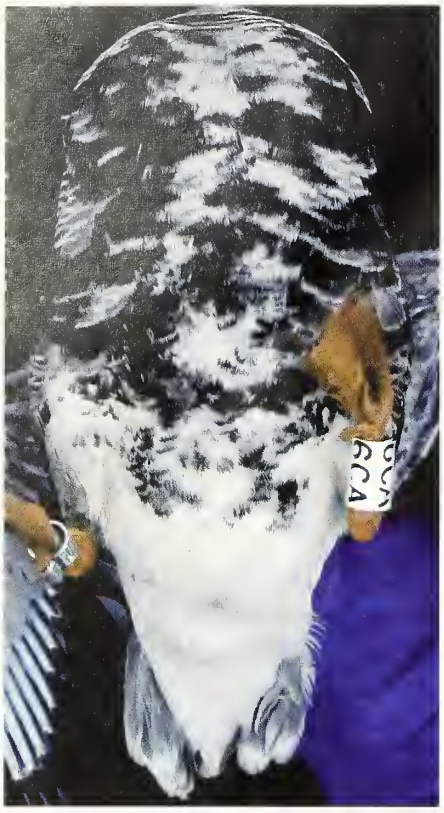
The catch involving 6CA we remember well - which is odd, given the number of goose catches that many of us have been lucky enough to be involved with over the years. The terrain around Kangerlussuaq in central west Greenland is rugged, the July climate usually dry and warm, and the sky cloud free. Indeed, the day of the catch had been a really long hot one: a huge walk in to the distant lake where she and the rest of her flock had been moulting. It was a long and difficult surround, which seemed to take forever, followed by the usual frustrations of launching and steering tiny inflatable boats into the teeth of the wind and losing four birds that got away. The net funnel had duly been erected at one end of the lake and eventually the ten remaining flightless birds had been driven off the water and into the corral. Right after we had caught, the weather turned nasty and when we were halfway through processing the ten geese, it just chucked it down. Really heavy rain: Cats and Dogs - or rather Caribou and Musk Oxen....

The team had bravely soldiered on in the deluge with ringing and processing taking place under the crude shelter of the de-inflated inflatable boats, and finally there was the relief of setting the birds free again after their ordeal. Not for us the euphoria of freedom - once finished, we had to pack up all the sodden gear and lug it back uphill and down dale to the two hours distant Base Camp. Everyone was dog-tired, soaked through and feeling near-hypothermic by the time we got to the tents - mostly operating on autopilot! In what now passes for our collective (and rapidly failing) memory, that day is deeply etched as amongst the most tiring we have ever spent.

Strangely enough, following her capture, 6CA was not seen in winter 1989/90 at all, but appeared the following winter, 1990/91, on the Inner Hebridean island of Islay. We have received 119 subsequent

A newly captured 6CA in July 1989 showing her shiny new collar and thin white "frons" on her forehead - indicative of a young bird *David Stroud*

Torrential and bitterly cold rain falling on the Lake surface as 6CA is released into the W. Greenland landscape after ringing *David Stroud*



Belly markings of 6CA on her initial capture
David Stroud

Belly markings of 6CA at her death in S. Iceland in Sept. 2005
David Stroud

resightings of this bird since that time, which conform to the pattern that, despite the long migration between Greenland, Iceland and Scotland, individual Greenland White-fronted Geese confine themselves to incredibly small wintering "home ranges" throughout their entire lifetime. 6CA was seen every winter for 15 seasons, 1990/91 to 2004/05 inclusive, always in the northwest corner of Islay around Loch Gorm, the overnight roost for her and the geese with which she associated. She was reported most (72 times) from Rockside Farm where she was observed in 11 different fields, but she also used the adjacent Sunderland Farm (24 times in at least three different fields). She was also reported from the nearby farms of Coull (immediately west of Loch Gorm, five observations), Kilchoman (twice), Rockmountain (immediately east of Sunderland, once) and Corsapol (once, a little to the east, south of the farm of Craigens). She also wandered south to Kilchiaran on the Rhinns of Islay, where she was seen three times in January 2000 and once in March 2005 and used the boggy pools of Loch Clach a Bhuaile, beside Loch Gorm. Surprisingly, we never in all those years had reports of her in Iceland during the 3-4 week stopover there in spring and autumn, at least not until she was reported shot.

She very likely never bred successfully – despite three reports of her associating with young, each were single observations in winters with many observations of her when she was clearly without young. Since Greenland White-fronted Goose families conspicuously associate together throughout the winter, these single observations very strongly suggest temporary associations with young of families which were not her own. In fact, very few Greenland White-fronted Geese do actually manage to breed successfully in their lifetime. An average of 15% of the goslings hatched in the mid 1980s survived to breed at least once during their lifetime, but this had fallen to less than 5% amongst geese hatched in the mid 1990s. This means that amongst these later cohorts, 95% of all geese hatched in a given year never produced offspring, a rather astonishing statistic. It seems that 6CA belonged to this group of birds.

Her barren status rather begs the question about her close relationship with the gander bearing the collar 5CA, which regular observers on Islay came to know as her constant close escort. He was caught, like 6CA as an "older than first summer" bird (hence age undetermined) in the self same catch and torrent of rain in Greenland. Both birds were almost never seen in winter other than in each other's close company, indeed, their close extended association logically identified them in the eyes of most observers as a natural pair. 6CA was only reported alone on five occasions, which attracted wry comments from the observers who knew these two geese as firm associates! In fact, during October and November when most of these observations occurred, Islay Whitefronts are often gleaning grain in stubble or feeding on beet waste, where the dense flocks and rich food resources often mean that family bonds become less evident, and this could be the case here.

Sometime after 1 February 2002, 5CA lost his collar, but nevertheless, the two birds continued to associate until the very end, our last report was of both feeding together on 23rd March 2005, inevitably at Rockside. Both 5CA and 6CA had very dark prominent barring on the belly at capture and in later years, but intriguingly, 6CA was paler and showed reduced belly barring at the time of her death compared to that at capture. Although the barring tends to get darker through the winter, we still understand very little about the physiology and function of the belly bars. But the real question is: was 5CA the mate, a sibling or even the daughter of 6CA? Alas, we shall never know, but given the amount of black on the toe nails and the bill nail of both birds at capture (which turns pale in adults), we strongly suspect they were second calendar year birds when captured (despite the extent of barring) and were therefore very unlikely to be paired at such an early age. More likely, they were young birds hatched in summer 1988, the offspring of parents with which they had associated on the winter quarters and migration and with whom they were potentially still associating in Greenland at the time of the catch. This could suggest that she and 5CA were sister and brother, but of course the delicious reality is that we shall never truly know. Many other very closely associating "pairs" have turned out to be parent and offspring, or siblings!

So it was with great sadness that we received the news of the demise of 6CA from Arnor Sigfusson, who had heard from a hunter who had shot 6CA at the farm called Guðnastaðir, Austur-Landeyjar, in the southern Iceland lowlands (63°35'N 20°24'W) where many Scottish-wintering White-fronts stage in spring and autumn. Her body was retrieved and subjected to post mortem by Dr Ruth Cromie of the Wildfowl & Wetlands Trust at Slimbridge, which showed her to be a in a very healthy state. She had some internal gizzard parasites, but no more or less than is normal amongst this population, and showed good stores of body fat ready for her onward journey (that she was alas never to make) and a body mass of 2.6 kg. Indications were that, in spite of her apparent chaste relationship with her "brother", she had attempted to lay eggs at some stage in her life cycle, so perhaps they were a pair after all! Much later, we heard that 5CA was also reported shot on the same day as 6CA from the farm right next to Guðnastaðir, so it may well be they were shot together at the same time.

Ironically, both 5CA and 6CA were shot in the very last autumn that hunting was allowed in Iceland. If she could have avoided the guns, she may have lived to a ripe old age. Our oldest Greenland White-fronted Goose to date was K23, a leg-ringed adult female caught in west Greenland in summer 1984, which was reported from Leorin (and nearby Balaclava House, both on Islay) in virtually every year since marking until winter 2005/06 and was therefore at least 22 years old. White-fronted Geese elsewhere are known to happily live for 25 or more years.

Both her Darvic and metal leg rings had worn very heavily over the 16 years since ringing and she had lost her neck collar, probably in early 2002 *David Stroud*

After peaking at a world population of just under 36,000 birds in winter 1999/2000, Greenland White-fronted Geese numbers have been declining ever since. The reason is falling breeding success since the 1980s, such that in recent years, annual production of 6-10% young fails to balance much larger annual losses of birds dying throughout the annual cycle. By spring 2006, numbers had fallen below 25,000, and all indications suggest that the count will be lower again this year. A great many possible explanations could account for this continuing decline. Climate change could be affecting feeding conditions in a way which affects body condition, for example. Many flocks late last century shifted from feeding on traditionally managed grassland or natural wetlands (such as peat bogs) to more intensively managed farmland, including fertilised reseeded grassland, root crops and stubbles, which may provide geese with plenty of energy, but may not be so good at supplying other vital nutrients necessary for successful reproduction. Also, the population increase itself may have put pressure on precious limited resources (such as spring staging feeding grounds in Greenland where females top up their body stores to invest in eggs and brood care) in a way that has meant population density has begun to limit reproductive output. However, when we have looked in detail at each of these theories to explain reduced reproductive success, none of them are supported by the available information.

An alternative and potentially likely explanation is the recent arrival of Canada Geese in large numbers to west Greenland, both as a breeding species and moult migrant from North America. Overall, Canada Goose numbers increased six-fold in west Greenland between 1999 and 2005, where the Greenland White-fronted Goose was formerly the only species present. We also know that in small areas, Canada Geese are behaviourally dominant over the endemic White-front, where they feed together Canada Geese get access to best food and in one studied area, Canada Geese have totally displaced Greenland White-fronted Geese since they first appeared in 1988. It therefore seems highly likely that Canada Geese are in some way contributing to the fall in productivity of the White-front in Greenland, although the jury is very much still out. The Greenland White-fronted Goose has now been identified as a critical species needing targeted action to increase its population size because of its risk in Scotland and internationally under Scottish Natural Heritage's Species Action Framework, so we hope for some concerted action under this initiative to clarify the causes of the decline and to suggest remedial actions.

Whatever was driving the decline in reproductive success, under the circumstances of declining overall population size, the kill of over 3,000 birds shot annually in Iceland every autumn was quite clearly unsustainable in the beginning of the 21st century, and the Icelandic government protected the population with immediate effect from autumn 2006. We wait with some anticipation to see whether the removal of hunting has any immediate effect as this season's counts come in from the winter resorts. The life history of 6CA confirms the incredible winter site-fidelity shown by the population, so it is important to monitor changes in numbers of geese at all of their known resorts. For this reason, it is more important than ever that we continue to monitor the breeding success and abundance of Greenland White-fronted Geese throughout the wintering grounds, and continue to read and report the presence of collars to help us better understand the trials and tribulations of this uniquely Celtic population of geese.

Wintering habitat for 6CA around Loch Gorm/Sunderland Farm, Islay *Clive McKay*

Tony Fox, David Stroud & Alyn Walsh
tfo@dmu.dk

The National Biodiversity Network sharing information about wildlife

In my article in the last issue of *SBN* (No. 84 June 2007), I made mention of the SOC's plans to submit bird records to the National Biodiversity Network (NBN) through the Scottish Bird Recording project which is part-funded by Scottish Natural Heritage. Here is a bit of background to the NBN which I hope readers will find useful. Much of the information presented here is taken from a presentation given by Oliver Grafton of the NBN to the SOC Recorders Gathering in December 2006, which I gratefully acknowledge.

The **National Biodiversity Network** aims to develop a national database to maximise the usefulness of the vast amounts of biodiversity data which naturalists, both amateur and professional, collect throughout the UK. The NBN is a network of like minded national and local data custodians preparing and sharing biodiversity records on everything from mosses and liverworts to wildcats and Whooper swans. It is an independent body which aims to develop standards and "tools" to facilitate greater access to wildlife information for all – primarily through the NBN Gateway website (see below). It is supported by the NBN Trust - a charitable trust set up in March 2000, which currently employs 7 staff. The SOC has worked closely with Andy Brewer and Oliver Grafton, Data Access Officers for the NBN who have helped us through the process of preparing data for upload to the NBN Gateway website. SOC's first dataset (Highland Bird Records 2002) has just been uploaded to the site.

Why do we need a national database for biodiversity records? Traditionally, the flow of wildlife records from observers to local recorders and records centres, and onwards from them to data users, has been a bit of a one-way process. The main feedback to observers has been through Local Bird Reports and the Scottish Bird Report, as well as through publications by other organisations such as survey reports, the BTO/WWT annual WeBS counts report, and through papers in journals such as *Scottish Birds* and *Bird Study*. In some cases it may be several years before surveys are reported. Finding the information you want for a species that you're interested in isn't always easy. Even harder is collating information for ALL species for a particular site – since most of our records are stored by species.

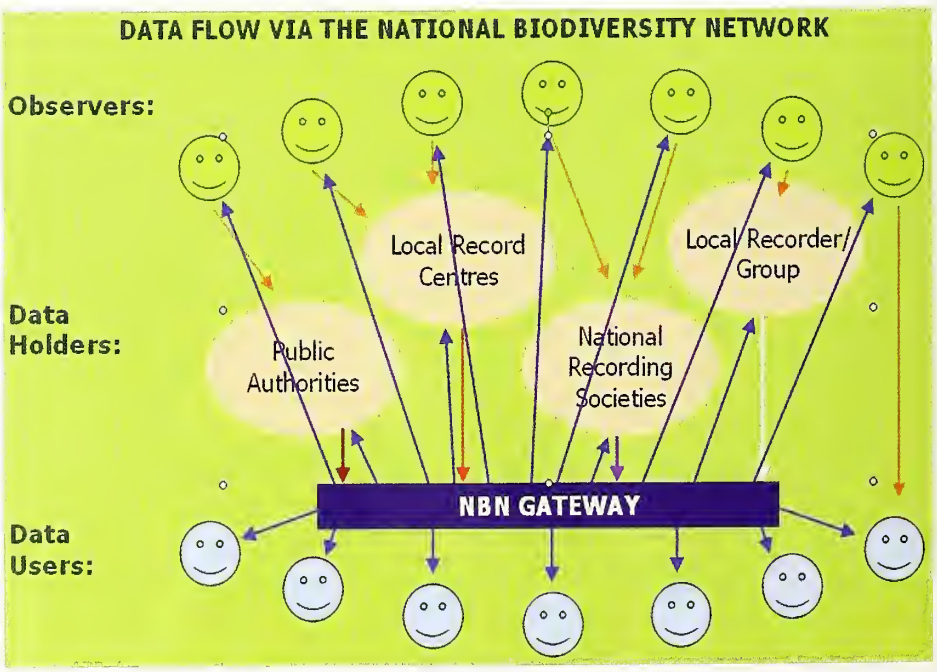
In addition, there is now an ever increasing number of bodies storing wildlife records. This is particularly the case for birds, as there are so many organisations involved in bird recording. Records are held by local recorders, the BTO (for surveys such as WeBS, BirdTrack and the coming Atlas), RSPB (single-species surveys organised by the RSPB and others through the *SCARABBS* (Statutory Conservation Agencies and RSPB Agreement on Breeding Bird Surveys) monitoring programme), and so on. Moreover, an increasing number of records are now being submitted to local or national websites, such as the *BirdGuides* website, or via more local e-mail newsgroups - which now have quite wide coverage in Scotland. With careful co-ordination, these records can be routed through the local recording network, ensuring that our records are properly validated. This is one of the important roles of the recording network, guaranteeing the quality of the records in the Scottish archive.

Bringing all this information together in one place is where the **NBN Gateway** has a role to play. The NBN Gateway www.searchnbn.net is a website-based "data exchange tool" where observers, recorders, and organisations such as the SOC can store and access records in a single place. Any bona fide organisation can submit records to the NBN Gateway – both SOC and the Argyll Bird Club have recently uploaded bird datasets.

The website and underlying database are hosted at the Biological Records Centre at Monks Wood, and form part of the wider NBN framework of biological recording tools and standards. The Gateway isn't a replacement for a records archive – it is a means of quickly identifying where such datasets exist, who is managing them and thus how to access them.

What is available through the Gateway?

- Data are shared through the Gateway in datasets e.g. "SOC Highland Bird Records 2002." Each dataset has an associated "metadata" page, which provides details on the nature of the records e.g. whether the records were collected as part of a systematic survey or as casual observations, their geographical and temporal coverage, data quality etc.
- Each dataset has an associated provider e.g. SOC Highland Branch
- Dataset providers control access to their datasets
- Access is controlled primarily through the resolution at which the records are plotted on distribution maps on the Gateway – e.g. full resolution (1km or 100m) for non-sensitive species, 2 km or 10 km resolution for sensitive species.



What can the Gateway do?

- Provide quick and simple access to a lot of biodiversity data
- Search by species or site name
- Produce species distribution maps
- Zoom into records laid over an area of interest
- Report on the species recorded within a site
- Download a species list and records for a site
- View full details of records (*provided that access has been granted by the data provider*).

Data is presented on the NBN Gateway in the form atlas-type dot distribution maps. To access these maps all you have to do is call up the web-site www.searchnbn.net and enter the name of a species that you are interested in. There is still only a small amount of bird data on the NBN. Those uploaded to date include RSPB single species surveys (e.g. Corncrake, Corn Bunting, Nightjar and Ring Ouzel), Argyll Bird Club bird records for 2002-03, SOC/Highland Branch bird records for 2002 and the JNCC Seabird 2000 survey results. The latter is a particularly good dataset to query on the NBN as many of the results are for non-sensitive species and so are plotted at high resolution.

Using the NBN Gateway – a worked example

- Call up the website using www.searchnbn.net
- Enter a species name, e.g. Great Black-backed Gull
- Select option 3, Interactive distribution map of *Larus marinus*

This should give you a map of the British Isles with distribution of GBBG plotted at 10 km resolution.

Below the map is a section entitled "Datasets available for *Larus marinus* to use", which lists the datasets that have contributed records to the production of the map. You can select or deselect individual datasets by checking or unchecking the box in the "Use" column. [To save time you can use the buttons at the bottom of the page to Select or Deselect all datasets]. After making changes you must use the Refresh button to redraw the map.

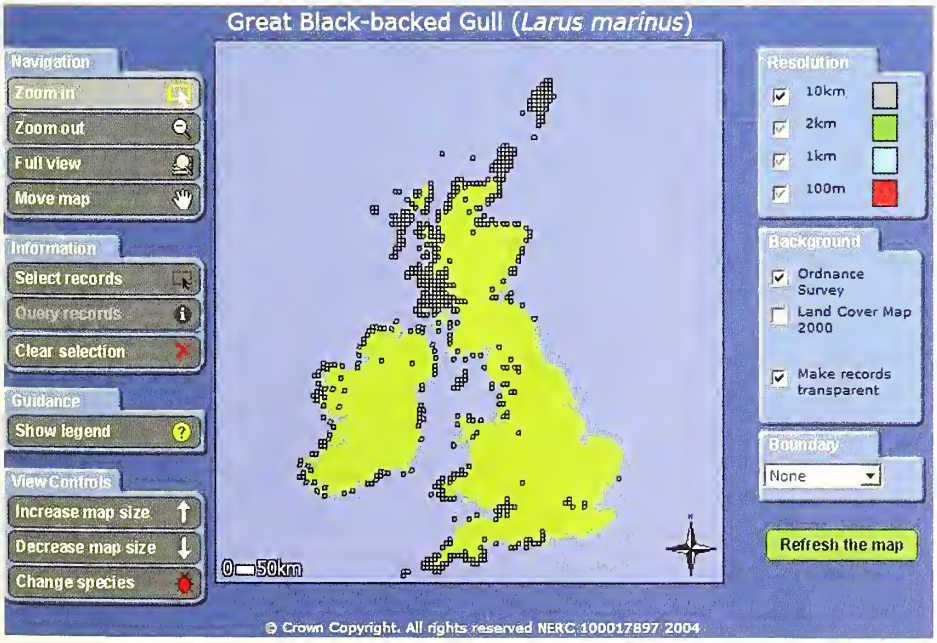
Datasets available for *Larus marinus* to use

Select the Zoom in option on the Navigation tab at the top left of the screen and move your cursor and click to draw a square around an area of interest on the map. A more detailed map will appear based on your selection – I have selected SE Scotland from Montrose to Edinburgh.

Great Black-backed Gull breeding distribution SE Scotland. Grey squares are at 10 km resolution.

Use	Dataset (Click the title for more information)	Dataset Resolution	Your Resolution	Sensitive access
	Argyll Bird Club			
☑	Bird records for the years 2002 and 2003	100m	1km	
	Bristol Regional Environmental Records Centre			
☑	BRERC Nov 2006	100m	1km	
	Devon Biodiversity Records Centre			
☑	Devon incidental species records 1950-2002	100m	10km	
	Environment and Heritage Service			
☑	EHS Species Datasets	100m	Full	
	Greenspace Information for Greater London			
☑	GiGL professional survey records	100m	1km	
	Joint Nature Conservation Committee			
☑	Seabird 2000	100m	Full	✓
	St Helens Wildlife Recording Group			
☑	St Helens Wildlife Dataset	1km	Full	
	Staffordshire Ecological Record			
☑	Stoke-on-Trent Environmental Survey results (1982-1984)	100m	10km	
	Take a Pride in Fife Environmental Information Centre			
☑	Red and Grey Squirrel Records for Fife from TAPIF EIC	100m	1km	

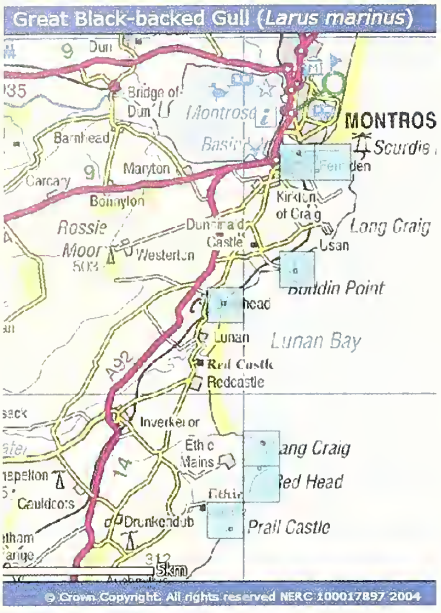
select datasets | deselect datasets | refresh



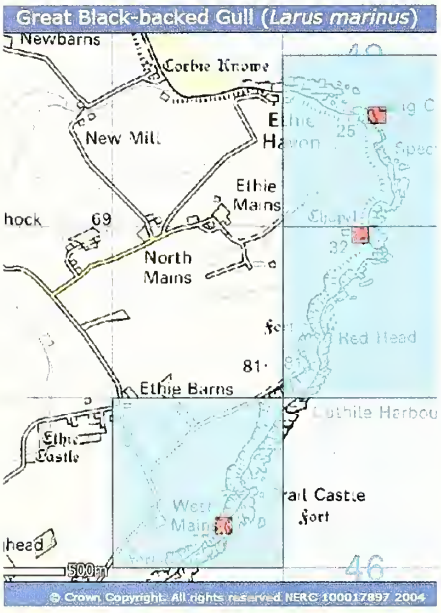
Great Black-backed Gull breeding distribution in the British Isles. Grey squares are at 10 km resolution.

- Repeat this process until you have zoomed in on only a few 1 km squares. As you zoom in on the map you can uncheck the 10 km and 2 km resolution options on the Resolution tab at the top right of the screen. You should be left with turquoise squares (1 km resolution) and smaller red squares (100 m resolution i.e. a six-figure grid reference). The latter are centred on the exact colony locations.
- You can make the map bigger by clicking on Increase map size on the **View Controls** tab at the bottom left of the screen.

One of the great features of the NBN Gateway distribution maps is that they are based on OS maps, and as you zoom in on the maps their resolution increases accordingly – down to the familiar final scale of 1:50,000.



Great Black-backed Gull breeding distribution Arbroath-Montrose. Turquoise squares are at 1km resolution.



Great Black-backed Gull breeding distribution Ethie Mains, Angus. Red squares are at 100m resolution.

The data on the Gateway can be further interrogated by:

- clicking on Select records on the **Information** tab
- draw a box around the records on the map that you want to interrogate. The map will redraw itself and the squares will be highlighted in yellow
- click on Query records on the **Information** tab and a table of data will appear giving more information about the records.

Sesnsitive records

The NBN Gateway is a powerful tool for quickly accessing and interrogating biodiversity data. Anyone can register on the Gateway and apply for new or better access to restricted datasets. Clearly it is vitally important that sensitive information does not get into the wrong hands. For this reason, the Gateway has robust online **Data Access Controls** which give the dataset managers control over who can access the data and in what detail.

Firstly, access requests go to the provider of the dataset (e.g. the local recorder, or whoever is appointed locally to manage each dataset), who then decides whether to grant enhanced access. For general access on the Gateway, records of sensitive species can be plotted at 10 km resolution (or simply excluded from the dataset altogether). SOC is working with local recorders to draw up guidelines on the appropriate resolutions at which to plot different species.

Proposed resolution for plotting records of breeding birds

Status	Example species	Resolution	Scale
Common species	Skylark, Meadow Pipit, Great Tit	Full resolution	100 m or 1 km
Less common species	Buzzard, Barn Owl	Tetrad	2 km
Locally uncommon	Hawfinch	10 km	10 km
Rare	Divers, Slavonian Grebe, raptors etc	10 km or not at all	10 km or not at all

Clearly, there will be regional variation in the status of species across Scotland. All decisions concerning sensitivity of records will lie with the local recorder or with the observers themselves, so there should be no chance of sensitive data getting onto the Gateway by accident. Moreover, it should be borne in mind that most data for rarer species will be dealt with through separate channels, e.g. by the Rare Breeding Birds Panel and Raptor Study Groups.

In addition, the Gateway also provides the following **Data Use Controls**:

- Access to and use of all data made available on the Gateway is governed by the Gateway Terms & Conditions
- All Gateway users are legally bound by these conditions
- Dataset providers are able to identify additional terms for a dataset within the use constraints metadata field

NBN Gateway web services

Underpinning the whole ethos of the Gateway is that of the NBN providing tools for its users. One exciting example of this is the potential for the functionality of the NBN Gateway to be linked to other websites – such as the SOC website. By simply providing links between the websites it will be possible for users of the SOC website to pull up bird distribution maps from the NBN Gateway - something that would otherwise be way beyond the resources of a small organisation such as the SOC.

Summary

I hope this article has provided a starting point for anyone interested in using the NBN Gateway. It is a fantastic resource, and SOC is pleased to be involved with it at this early stage thanks to funding from SNH. There are still issues to resolve and guidelines to be drawn up, but this is very much work in progress. The usefulness of the site will increase as more and more datasets are added, and there are exciting developments afoot with regard to presentation of Scottish tetrad atlas data on the Gateway. I would welcome any comments that you have on any of the topics raised in this article, or any ideas for other datasets that could be considered for upload to the NBN Gateway.

Clive McKay
Scottish Bird Records Co-ordinator,
clive.mckay@the-soc.org.uk

Musselburgh lagoons newsflash

Plans to expand Musselburgh race course and add an all-weather, flood-lit track abutting the Firth of Forth SPA have been rejected by the Scottish Executive following a Public Inquiry in 2006. The decision was announced on 15 August following the publication of the Reporter's findings (download at www.hool.org.uk/PI_Report_Final_Apr07.pdf). East Lothian Council had previously approved the plans. Ian Andrews was part of the team, voicing local residents' objections, which won a resounding victory. The Reporter cited several reasons for his decision, but stressed the problems with the flood-lights on the SPA and their unacceptability regarding the wader roost. For such a proposal to stall largely due to wildlife reasons is grounds for rare optimism. Work to halt habitat degradation at the wader scrapes continues, but with Cockenzie Power Station apparently still having a long future, the plans for the westernmost lagoon are still on hold.

Art within the Muirshiel Hen Harrier Project

Art work at Muirshiel *Michael Thomas*

Hen Harrier studies *Michael Thomas*

Duncan Watt, well known to most SOC members as the elegantly bekilted painter of Capercaillie and other fine birds, is engaged with a project that will, I hope, be copied in many other 'honey pots' for bird watchers and assorted naturalists.

The Project(www.clydemuirshiel.co.uk) is a partnership between the RSPB, the Muirshiel Regional Park, SNH, the SOC, local landowners and Viking Optical. Its special claim on our attention is two-fold. It is the only visitor centre in the country specialising in nesting Hen Harriers, whose lives can be viewed via webcams from mid-May to the end of July. Three nests this year produced nine flying young, one nest yielding four fledglings.

Muirshiel has another claim to most favoured status. It has an artist in residence. Duncan has spent much of the summer sketching the behaviour of the birds, and his output can now be viewed at the centre. It is a splendid example of art education at work. Those visiting the centre can see the reality - the birds themselves - and they can see the artist's renditions of the breeding life cycle – food-passing, sky-dancing, brooding, feeding the young, and the great drama of a marauding fox being fended off by a tiny chick. This is art and nature living alongside each other, and I applaud the venture. The art is living, created by an artist with a fine imagination as well as an acute eye. Back in his studio the artist has produced some stunning acrylics [also on view] each of which has its own story to tell and interpret.

I would like to see more nature centres encouraging artists to work "on site". Not only does it bring a new dimension to the visitor experience, but through art education, new talent will be nurtured - not purely studio-trained, but artists with a real feeling for nature and the importance of nature conservation.

I congratulate Duncan Watt for his efforts, as I do the management of the centre for their eager co-operation. It's a great venture.

Michael Thomas

Duncan Watt with Hen Harrier *Michael Thomas*

Mixed bag for Scotland's Birds in 2006

Whitethroat *Jimmy Maxwell*

Good news for our Scottish Whitethroats and House Sparrows against the declining trend of their English neighbours. However the news is not so good for Lapwing and Kestrel. These are just a couple of headline examples from the results of the 2006 breeding season for the BTO/JNCC/RSPB Breeding Bird Survey.

Whitethroats bouncing back

After a rough period in the late 1960s, Whitethroat numbers have nearly doubled in the last twelve years. There was a significant increase in England of 37%, but this pales in comparison with the whopping **92% increase** we've seen in Scotland since 1994. These warblers are being increasingly reported from upland sites as the population spreads out from its lowland and coastal strongholds. This is good news for the species which had disappeared from many parts of the southern uplands and highlands of Scotland during the late 1960s. In common with other trans-Saharan migrants, the number of birds returning to Scotland each spring is affected by conditions on the birds' wintering grounds and migration routes.

House Sparrows buck the UK trend

Another species doing well in Scotland is the House Sparrow. Whilst English birds have declined by 14% since 1994, our "speugs" have increased by 31%. Interestingly, Welsh House Sparrows also seem to be doing extremely well, with a massive increase of 107% in the same period. This is welcome news for the currently red-listed species. It's a pretty complicated picture, with different factors affecting our rural and urban populations. It is possible that the declines witnessed in England are related to a general reduction in food supply in the wider countryside. In the towns, over-tidied, sterile gardens may be contributing to a reduction in the invertebrate prey for young sparrows.

House Sparrow *John Harding*

Kestrel *Jill Pakenham*

The House Sparrow is not the only species doing better in Scotland than England. Intriguingly, another three amber-listed species are doing much better here; Cuckoo, Mistle Thrush and Willow Warbler, all of which are increasing in Scotland, but declining in England.

Fewer Kestrels in our skies

Of course, there is always the bad news. Kestrel and Lapwing have been highlighted due to their declines. Fewer Kestrels are being seen hovering over our roadside verges, with numbers down by nearly two thirds since 1994. Curiously, Kestrel declines are much less severe in England, down 9% compared to 65% in Scotland. The fall in Kestrel numbers is probably linked to a decline in its main food source, voles. Changes in agricultural practice on both upland and lowland farms are likely to be the main cause of this. On top of this, BTO's Nest Record Scheme highlighted last year that Kestrel brood size was decreasing. More pairs are now raising three chicks instead of four or even five. There is serious cause for concern for this amber-listed raptor.

Lapwings in trouble

Another increasingly rare sight in Scotland is that of displaying Lapwings. It seems that the birds are finding it harder to successfully raise young on Scotland's upland moors and farms. The decline of the Lapwing between the late sixties and early nineties was shown dramatically by the last two breeding atlases. Over the intervening years, these attractive birds disappeared from many parts of western Scotland. Many birdwatchers will be anxious to see the picture that emerges from the forthcoming Bird Atlas 2007-11.

Help needed to track trends for other declining species

It would not be possible to report on these trends without the help of hundreds of birdwatchers in Scotland who give up six hours a year to count birds on their randomly selected 1km square. A total of 165 species was counted on a record 333 squares in Scotland during the 2006 breeding season. (A staggering one million individual birds were counted in the UK last year.) We'd really like to involve more people in Scotland. If we can record birds such as Grey Partridge and Spotted Flycatcher on just nine more squares we would be able to calculate Scottish trends for these declining species. If you are able to identify most common breeding species by sight and sound and could manage two field visits a year, please contact BTO Scotland. Telephone: 01786 466 560 or email: scotlandbbs@bto.org. Please contact the BTO office if you would like a free copy of the 2006 report (normally £5).

Jacqui Kaye

Lapwing *Stewart Love*

A wing-tagged kite *RSPB*

Aberdeen Red Kites

This summer RSPB Scotland has begun a reintroduction project to bring Red Kites back to the outskirts of the Granite City. Aberdeen Red Kites is a three-year project, which hopes to release 90 young birds with the aim of establishing a self-sustaining population within a large gap in their Scottish range. Although this is the fourth reintroduction in Scotland, it is the first to be carried out so close to a major populated area. We hope to raise awareness of the Red Kites and the other spectacular wildlife that Aberdeen and its surroundings have to offer.

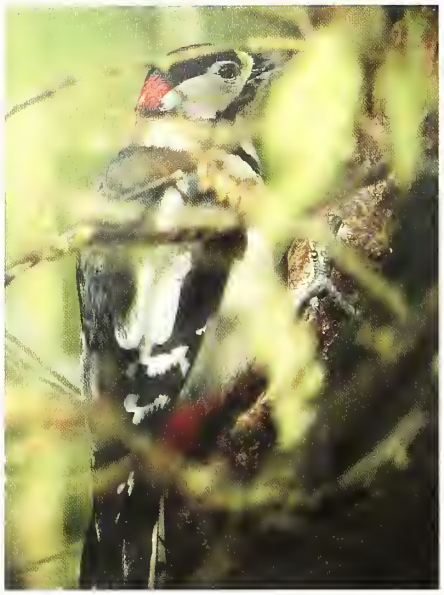
Funding has come from the The National Lottery through the Heritage Lottery Fund, Aberdeen Countryside Project through the Landfill Communities Fund, and SNH, with further contributions from local businesses - the Stewart Milne Group and Raeburn Christie Clark & Wallace.

All of the 30 kites that have just been released have radio transmitters and individual wing tags so we can track their progress over the coming months. If you are lucky enough to see any of the Aberdeen Red Kites, we would really appreciate your sightings. Please email these to aberdeenredkites@rspb.org.uk

Jenny Lennon
Red Kite Project Officer

Prior to release *RSPB*

Bird photographs – a personal angle



Great Spotted Woodpecker in cover

Here are one member's thoughts on bird photographs. Considering how many feature in SBN, it would be interesting to hear other members' views.

As a real amateur, but admitted addict in the bird photography game, I am progressively intrigued about why I like certain photographs. Certainly I can appreciate the near-perfect, pin-sharp, unobstructed, naturally posed beauty of a bird and often try and fail to attain this myself. But there is a part of me that resents the picture-book quality and perfection of such work and feels that usually in bird-watching, life is just not like that. I suppose that, as in art, being able to simply admire the picture is not enough – I want to be optically teased a little, to have to struggle a bit as well, to really come to terms with it, identify with it and eventually enjoy it.

These thoughts were aroused during a search through my own photographic files. I had somehow kept, rather than discarded, the two photographs you see here. Since the originator of the images is usually their strongest critic, I wondered why I had bothered to keep them at all, and had to admit that it was because I liked them – and for the following reasons.

As in most bird-watching (except at a distance, or from hides), these occasions were "interactive" – the birds knew I was there, but had decided to go about their business anyway. Also, at fairly close digiscoping range, the images are fairly big in the frame and although partially hidden, remain large enough to be effective. Their shape and colour seem to complement the natural habitat that envelops them. The woodpecker is caught in dappled sunlight with the out-of-focus twigs and foliage teasing us by hiding parts of the bird that we know must be there. The snipe's upright stance and its beak mimic the surrounds of straight and angled reed stems, confusing the overall photo slightly. For me, because I am denied total access to the images, they paradoxically show more essence of the species because of it.

These shots of course are photographic "accidents" which I selected from several less balanced compositions taken at the same time. I would argue that most good photographs, and here I mean professional photographs, are governed partly by chance. The photographer's real work is all about having himself and the bird in optimal positions and everything always technically right, so that a good picture is possible. It is then a matter of taking as many shots as possible in the hope that one might be perfect. The best action shots we see in magazines are not the result of lightning-fast reactions of the photographer, but depend on the chance of the objects in view being "just right" at a moment in time too instantaneous for a human to react and purposely catch it with the camera. It is then a matter further involving the photographer's skill to appreciate, select and refine the really good photograph.

As for the images I have shown here and the point of writing this note, every edition of this publication shows kindly donated photos of birds to illustrate the articles there and you as the readers will have your own criteria for their appraisal. As a member, I have shared some of my personal views - we take pictures for the pleasure it gives us and it's just interesting at times to wonder why this should be. For others to occasionally enjoy them as well is a bonus, and I would be lying if I said that this did not give me much more pleasure!

Jimmy Maxwell

Foraging Snipe

Peter Parnall

Ornithological Folklore
2. The Nightjar

One of the beneficiaries of climate change and the activities of the Forestry Commission may be the Nightjar - warmer springs and recently-felled forest would benefit the species which is now a scarce bird in Scotland.

Its Scottish names [goat chafer, goat owl and the Gaelic *Gobhar-oidch, goat of the night*] give some clue as to the bird's fabulous nature. Since the Nightjar is indeed a bird of the night, crepuscular in its feeding habits, it is unsurprising that it is the subject of fable and superstition. Its Latin name is *Caprimulgus*, milker of goats - goatsucker. Aristotle [384-322 B.C.] records its Greek name, *aigothelas*, deriving from *caigo* - goat, and *thelas* - sucker.

This is a bird that has been observed by pastoral people leading to its English name Nightjar, descriptive of its call-note/song, the strange jarring or churring that carries over long distances on quiet spring evenings. Goatsucker derives from observations leading to false conclusions. In Greece and Italy herds of goats moving across the landscape would disturb grasshoppers and the like, providing the Nightjar with feeding opportunities in the late evening. It is not hard to understand why objects silently flitting around herds of goats led the natives to believe that the birds were indeed stealing milk from their goats. Peter Parnall has graphically portrayed this activity.

Michael Thomas

NOTES & COMMENT

Caption Competition

Provide a caption for the Cormorant picture below and have a chance of winning an SOC item. Each *SBN* edition will feature a new photo. The winner and other best captions will be shown in *SBN* 86. Send your single caption by E-mail to jimmy.maxwell @virgin.net (or of course by mail to the SOC – see Page 3)

Cormorant *Norman Tait*

The winning Caption from *SBN* 84 (see photo below) came from Nick Carter with – "When I grow up I want to be a Bittern". Well done! Other runner-ups were "I hope cows don't fly"- Jennifer Spring. "I think that's an Airbus 380" – Roger Whitehouse. "The vet says we've to gargle for this bird flu'" – Iain Matthewson.

Iceland Gull *Frank Stark*

Woodpecker Response

With reference to Harvey Burton's note in *SBN* 84 about a Great Spotted Woodpecker taking Scots Pine cones and his comments about their habit of wedging them, Archie Mathieson has contacted us to list three different "vice" methods used by the species that he has witnessed:

- using a crack on the top edge of tree stump.
- wedging the cone in the fork of a branch.
- pecking out the rotten end of a branch stump to hold the cone.

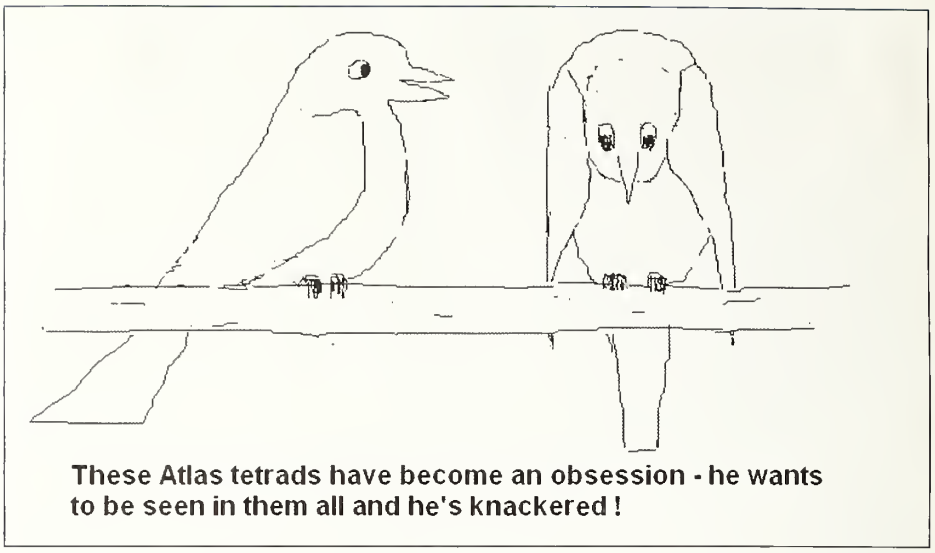
He has also witnessed the species using Marble Galls from Oak trees in similar ways, to extract the larvae.

Kleptoparasitic behaviour by a juvenile Starling

On the 10th of July 2006 at 1800hrs I was watching a young Blackbird being fed by its parent in my garden. Also present in the garden were several Starlings foraging for invertebrates. While the juvenile Blackbird was begging for food and its parent returning to feed it, a juvenile Starling flew towards them and removed the food from the adult Blackbird's beak. It was then chased by the adult Blackbird, flying away a few metres to consume the food.

Approximately five minutes later the Starling was still present, staying very close to the juvenile Blackbird while the adult female Blackbird fed in the garden. The adult Blackbird then fought with the Starling for approximately two minutes before flying off to another garden. Throughout its absence, the Starling followed the young Blackbird around, continually harassing it. When the female returned, the Starling flew towards it again and tried to remove the food: this time the female called to the juvenile Blackbird which flew off to a tree some 200m away. The Starling did not follow and flew off in another direction. Källander 1988 in "Birds of the Western Palearctic" records kleptoparasitizing behaviour with Lapwing, however no other mention could be found of this type of behaviour by Starlings with other species.

Simon Foster



These Atlas tetrads have become an obsession - he wants to be seen in them all and he's knackered !

In a previous SBN, we enjoyed Keith MacGregor's painting of that famous bird at Rosyth – in the following note is another memory of that momentous occasion.

Wilson's Phalarope - a brush with greatness!

As a schoolboy member of the SOC in Glasgow, I attended the branch AGM on 30th September 1954, at which it was announced that a Wilson's Phalarope had turned up at Rosyth, the first time this species had been seen in Europe. For some reason this news fascinated me and I resolved to try and see this bird for myself. My aunt who lived in Edinburgh kindly agreed to put me up for a couple of nights, and on Sunday 3rd October she took me to Queensferry where I joined the ferry across the Forth.

Once on the North side I walked to the pools at Rosyth and joined up with a couple of birdwatchers already there. We had excellent views of the Phalarope as it allowed close approach, and as this was the first phalarope of any species I had seen, I was fascinated by the way it spun round on the surface collecting insects. Another bird new to me that day was a Little Gull which was also on the pools.
While I was there, three other bird watchers arrived, this turning out to be none other than George Waterston, Tom Weir and Arthur Duncan. It was a real privilege to be in such distinguished company and I look back on that day as my "brush with greatness"- to see a great little bird and to meet three doyens of Scottish Ornithology at the one time.

Ramsay Napier

Nuthatches in Clyde

Since the note in *SBN* 80 which looked forward to our Dalzell Woods Nuthatches breeding again in 2006, we can now report that they were again successful with yet another pair also nesting in the same locality. This year the situation has progressed further with three pairs breeding, again fairly near one another. The original pair have continued to use the same batbox site and their young were ringed this year and last year, but the new breeders were all unringed, suggesting that we may have new birds moving up through this area in the northward spread of the species. As far as I know this growing colony represents the only Nuthatches breeding in the Clyde area.

Jimmy Maxwell

Rangers accessing the box for ringing (left). One of the original pair at the batbox (right) *Jimmy Maxwell*

BOOK REVIEWS

Galloway and the Borders (The New Naturalist Library) Derek Ratcliffe 2007. Harper Collins, London 384 pages Hardback, ISBN-10 0007174012, ISBN-13 978-0007174010, £45 Paperback, ISBN-10 0007174020, ISBN-13 978-0007174027, £25

This excellent addition to the New Naturalist series seems certain to become the definitive reference for those with a love of Southern Scotland and its natural history. Sadly it is the last of several books written by the distinguished scientist and conservationist Derek Ratcliffe (1929-2005), who died just days after finishing it. As well as being a mine of useful information, it contains 215 superb colour photographs, taken mostly by the author but including many of wildlife by Bobby Smith.

After a warm tribute to Ratcliffe by Des Thompson, the book commences with an evocative reminiscence of the author's early explorations of the Southern Uplands in the 1940s and 50s, encouraged by his mentor Ernest Blezard. Then follow chapters dealing with: the environment (topography, climate, geology, vegetation, land use); naturalists who have documented the region's fauna and flora; the coast; ancient and semi-natural woodlands; lowland farmland, grassland and heath; wetlands; upland vegetation and flora; upland fauna; afforestation; conservation and the future. Appendices list protected areas and conservation organisations, and there is one about fungi written by Roy Watling. A comprehensive reference list is followed by separate general and species indexes.

Ratcliffe trained as a botanist, and his encyclopaedic knowledge of the flora of Southern Scotland (based largely on his own research) is evident in the long lists of plants he presents in parts of the book. There is inconsistency in nomenclature, however, because although nearly all plant and animal species are referred to by their common names only, there are places where only scientific names are used. Although this will not be a problem for those with internet access to Google, an appendix showing common *and* scientific names of all species mentioned would have been helpful. Also, there is frequent use in the text of Rodwell's (1991-2000) vegetation classification abbreviations (e.g. SM8, MC7, W19, etc.), but without any proper explanation to put them in context. This too could have been done in another appendix.

Ratcliffe's knowledge of birds was equally impressive, as is evident from his previous classic monographs about the Peregrine and the Raven, and the extensive sections in this book that deal with birds should appeal to SOC members. There are interesting passages, for example, on the effect of afforestation on Dipper abundance, the effect of Vole population cycles on numbers of Kestrels and Short-eared Owls (although no mention of Ian Taylor's research on Barn Owls), and the 1992-6 "Langholm Enquiry" into the thorny issue of Hen Harrier predation on Red Grouse. I did wonder, however, if more use could have been made of information derived from the BTO's annual Breeding Bird Survey and from Murray et al.'s (1998) *The Breeding Birds of South-East Scotland.*

Ratcliffe was passionate in defence of wild places, and, in his professional role as Chief Scientist of the Nature Conservancy Council, led the battle against commercial forestry to prevent destruction of upland habitats. His damning critique of afforestation is therefore particularly revealing, and there is also a good analysis of grouse shooting and game preservation. Surprisingly, however, he had very little to say about wind farms and their potential impact on birds. Finally, I cannot resist including a wonderful quote that clearly reflects his bitter experience with developers: "But never underestimate the capacity of entrepreneurial types and engineers to bounce us with great plans that are seductive in their promise of wealth and job creation, but hugely threatening to the natural environment and wildlife."

John Savory

Waterbirds around the world, Edited by Gerald Boere, Colin Galbraith and David Stroud. 2006. The Stationery Office, Edinburgh, U.K. ISBN 0-11-497333-4. £50.00.

A major International Conference on waterbirds was held in Edinburgh in April 2004, bringing together over 450 participants (conservationists, biologists, government officials and students) from 90 countries. This substantial 940-page volume (weighing in excess of 4 kgs!) contains the 230 papers read at the Conference, from the major plenary presentations to the many shorter contributions to specialist workshops.

The principal theme of the Conference was flyways, the main migration routes followed by waterbirds of all kinds (swans, geese, ducks, waders and seabirds) with due emphasis on how birds have no thought of international boundaries as they migrate and how, therefore, the conservation of both birds and their habitats must involve close cooperation between different countries.

The volume is divided into six major sections. The Introduction includes the addresses by the Prince of Wales, Government ministers from the UK, Scotland and The Netherlands, the President of Wetlands International and the Chairman of Scottish Natural Heritage. It also contains the all-important "Edinburgh Declaration" in which the Conference participants urged relevant governments and organisations to give priority to the conservation of waterbirds and their habitats, in particular through the various international conventions and treaties which have done so much already, but which could do a great deal more given the necessary impetus.

The second section contains the Plenary papers which dealt with broad overviews, including the 100 years of flyway management in North America, the current knowledge of African-West European and Asian-Pacific flyways, the impacts of conservation, sustainable harvest, and climate, and the special needs of waders, especially the Red Knot, and of albatrosses and petrels in the Southern Ocean. This last topic was what the Prince of Wales concentrated on in his closing address to the Conference, namely the plight of the albatrosses, whose very future is threatened by longline fishing.

The remaining four sections are Geographic regions, Cross-cutting issues (e.g. climate change, disease, migration ecology), Integrated approaches to waterbird conservation, and Waterbirds and people. Within each of these, papers are grouped by topics containing anything between three and 23 individual papers. Some papers are short, only one or two pages, others are more substantial extending to a maximum of about ten pages. As well as the maps and graphs provided by the authors, the volume has been liberally illustrated with well-produced and apposite photographs. Anyone interested in waterbirds cannot fail to find something of value here. To take just a dozen examples, almost at

random, one can learn about monitoring Arctic-breeding waders, the numbers of waders on sandy beaches in southern Chile, the ecology of the Madagascar Teal, the wetlands of Afghanistan, the status and conservation of the Little Curlew, the global importance of avian botulism, trends in Ruddy Shelduck populations, Spotted Crakes in the UK, changing numbers of Greenland White-fronted Geese, marine birds and offshore windfarms, assessing the numbers and distribution of waterbirds in UK inshore marine waters, and considerations on the use of lead shot over wetlands.

It remains to say that the whole volume has been edited and produced to the highest quality. Obtaining the written papers from Conference participants is always a difficult task, yet the editors have not only achieved this but have edited them to a very high standard of content and presentation, for which they must be congratulated. Not only that, but this massive task has been completed remarkably quickly, so that the information contained here has not lost its relevance through the passage of time. This volume represents a major landmark in the ongoing process of waterbird conservation around the world.

Malcolm Ogilvie

Bird Families of the World: Pelicans, Cormorants and their Relatives. J Bryan Nelson. Illustrated by John Busby, Andrew Mackay and Bas Teunis 2005. OUP 0 19 857727 3. Hardback £100

The Cuckoos. Robert Payne. Illustrator Karen Klitz.2005. OUP 0 19 850213 3 Hardback £100

These two volumes are from the "Bird Families of the World" series. Each book in the series has between five and eleven chapters on the general biology, feeding ecology, breeding behaviour, evolutionary relationships and conservation of the birds in the family. The remainder of the book is devoted to the species accounts, illustrated by a mixture of photographic plates, paintings/line drawings and maps. Both books are well written and illustrated to a very high standard. The text is both informative and easy to read as it uses a slightly larger font size than in some handbooks.

In Pelicans, Cormorants and their Relatives I particularly liked the behaviour and general family accounts and the artist's illustrations of the territorial and pairing behaviour which was analgous to seeing a film documentary on the page.

In contrast, I was fascinated by the accounts of the fossil record and comparative evolution in the Cuckoos volume. It has been concluded from biological and molecular estimates that Cuckoos evolved earlier than their fossil record suggests. Early naming often led to cuckoos being classified with other species but modern research into DNA, and mitochondrial and genetic studies, may confirm cuckoos as having no close relatives.

Jean Torrance

Where to watch birds in East Midlands (second edition)Rob Fray, 2006. Christopher Helm, London. ISBN: 978-0-7136-7530-6. £16.99

This is the second edition of one of the excellent "Where to watch birds" series, covering the counties of Lincolnshire, Nottinghamshire, Derbyshire, Leicestershire, Rutland and Northamptonshire. There are 16 new sites and this time round, all the counties receive a fair and equal treatment, although Lincolnshire (with its coastline) rightly receives the greatest coverage. The author is county recorder for Leicestershire and has been a very active birder in the area since the mid 1980s.

Before I moved to Scotland in 1988, I was based in the East Midlands and so was familiar with a number of the sites in this book. At that time, there was no such guidebook, and for locals this new version is to be welcomed. Like others in the series, it is clear and concise, yet full of information about what birds to expect when and where, and how to find them and the places to look. The maps are very clear, and appear to be up to date (even marking sites of new gravel workings expected after the book went to press), but I particularly like the line illustrations by Leicestershire artist and birder John Wright.

For SOC members, if you have cause to visit the area for more than a few days, I would definitely recommend this book.

Mark Holling

Bird Songs of the Scottish Highlands. John Neville, 2007. Neville Recording ISBN 0-9781797-1-4 NR11. 2 CD set with 118 bird species. 1st CD – 49.19 mins, 2nd CD - 62.27 mins. Price from www.nevillerecording.com

When I was asked to review this CD set, I was a bit apprehensive as I have never really listened to a CD of bird-song from start to finish. However, I was very pleasantly surprised. John Neville takes you on a journey, two really, the first being from January to December and the second from habitat to habitat, mountains to coasts and farmland to lochs.

I really enjoyed listening to the sound recordings which are excellent, mostly his own, but with others from well-known recordists like Simon Elliott and Derek McGinn - several have already won individual awards. I liked the way he groups the birds, and some appear twice like the Golden Plover, with a mass of them in winter and then their plaintiff call on the moorland later on. I felt I was in the woods and the Blackcap calls took me right back to our dawn chorus in the Brahan Estate earlier in May. It was also especially nice to know the places where the recordings were made. You can picture the sea cliffs of Handa, or the open farmland of Colonsay, the Bass Rock with its Gannets and the station at Forsinard. The Corncrake was wonderful to hear as I have just come back from Tiree.

John has grouped the geese species together, so I listened a couple of times to try and remember the difference between the Greylag and Pink-footed Geese - you can rewind in order to compare bird calls. He admits there is an overlap between some habitats like garden and woodland, but that is no problem. I also liked the few animals he has added like the Roe Deer whose bark could just as well be another bird! The background sound of sea, water and other birds is effective too.

My only criticism of the set is that it does not state on the front cover that there is a commentary which introduces the birds and says where many were recorded. Some people might think it is just another CD of bird sounds where you have to have the box with you to know what bird is calling. I feel this CD will be saleable to people who are interested in ornithology, but not necessarily to a real enthusiast. This set will certainly help many to identify the local birds by sound, and because it is site specific, most people buying it will have seen the birds around.

I certainly will be considering buying this CD set, as I find it difficult at times to know my bird calls and this will definitely help. Its title "Birds of the Scottish Highlands" also helps me choose from the many other CDs out there in the shops.

Janet Crummy

Feathers: Identification for bird conservation, Marian Cieslak and Boleslaw Dul, 2006. Natura Publishing House, ISBN – 10: 83924410-0-1 (hardback), 320 pages, 259 photographs, 24 tables, £25.99 (+ p&p).

There are many guides to the identification of birds, including their appearance and calls, but few tackle the identification of feathers. This is because of the large amount of detail required. For two decades, the standard text has been Brown, Ferguson, Lawrence & Lees 1987, *Tracks and Signs of the Birds of Britain and Europe*, which covers the sizes and description of flight feathers (and some body feathers) of most species. The 2nd edition was published in 2003, enhancing coverage to illustrate roughly 200 species, but it remains superficial because the variability within species is not tackled. This Cieslak & Dul photographic guide to the flight feathers of birds thus represents a major progression to a new level of detail with its emphasis on variation. The disadvantage is that relatively few species can be covered in a single book.

There are further guides with more species in preparation but this is the first English language volume to go into such detail on European birds. It includes the diurnal birds of prey and owls of Central and Eastern Europe, together with a few other species that are similar in appearance, or in conservation importance. The project arose from the use of moulted feathers to identify the breeding and foraging sites of terrestrial birds on forested and agricultural land. The authors give great emphasis to the use of feather identification for conservation and so detail the wing and tail feathers of 60 species, 38 of which are in Annex I of the EU's Birds Directive, i.e. those requiring enhanced protection and regular monitoring within the EU Member States.

An Introduction has a section on 'the use of feathers in conservation and research', 'basic information on feathers', then 'material and methods'. The major part of the book however, covers the individual species identification accounts that are grouped into 14 sections, according to their similarity in the colour, pattern & size of feathers. Ten sections are comprised of birds of prey; Cuckoo is grouped with small falcons, and Nightjar with medium-sized owls. The last four sections group Common Crane with storks, herons, large corvids and Great Cormorant, then three species of large gamebirds, four of large waders, and finally, three species of Coraciiformes. The appendix gives detail of domestic birds such as turkey or goose, which might crop up as prey items.

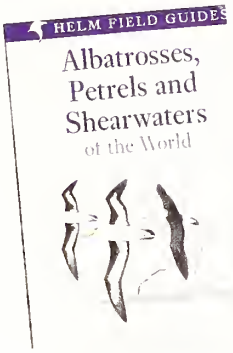
Each species account includes the shape and size of feathers, their colour and pattern, and variation with sex, age and (where appropriate) between individuals. A final paragraph lists other species that can be sufficiently similar as to cause confusion. Feather series of arrayed primaries, secondaries and tail feathers, are portrayed in coloured photographs. There is painstaking accuracy in these photographs. Different individuals are distinguished and detail of age or sex is labelled. The photographs are taken against a scale of two cm intervals. At the end of each section a summary compares species and gives a table of average measurements. Only the diurnal birds of prey contain metric detail for every flight feather – other species are given an approximate range of sizes for the longest primaries, secondaries and tail feathers.

The text is well written, and easy to understand. Some points are repeated in different chapters but not inappropriately. I searched for errors but found few – there are occasional typographic mistakes and a citation that did not seem to be included in the Bibliography. Considering the colour reproduction and the overall high quality of presentation, the book is low-priced. This is a remarkable book in its attention to detail and accuracy. It successfully embraces variability within species and thus is an essential guide for those professionals and enthusiasts concerned with the conservation of this group of species.

Set against that, the novice will need perseverance because the book is not particularly easy to use. There is no key to diagnostics and not even a basic description to distinguish by shape and form, the feathers from different tracts. Furthermore, it is of limited use in Britain. Of the 60 species covered, only 34 occur regularly in Scotland and only 17 of them are common or widespread. It is clearly a specialist volume. Undoubtedly, the 2003 edition of the 'Tracks and Signs ...' remains the standard feather guide for most Scottish birders – the Cieslak and Dul photographic guide is a text for those who wish to pursue detail.

Mick Marquiss

Albatrosses, Petrels and Shearwaters of the World Derek Onley & Paul Scofield. Helm Field Guides. ISBN 978-0-7136-4332-9. 2007. 240 pp. £19.99 (Paperback)



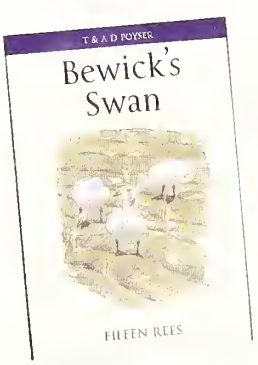
A comprehensive field guide to 137 species of pelagic seabirds, with subspecies and colour phases fully illustrated. Concise identification points appear opposite each of the 45 colour plates of flying birds. The second half of the book deals with species accounts and includes invaluable colour distribution maps. Recently rediscovered or split species are dealt with under taxonomy, but the authors have tended to be conservative and leant towards only separating those species recognisable in the field. As with all field guides the quality and accuracy of the colour plates is vital. My first impressions are that whilst they are well drawn, lifelike and appear accurate, there is a paleness in the colour tones to certain plates, which is a little disappointing in what otherwise is a very useful book.

David Clugston

The Whooper Swan Mark Brazil Illustrator Dafila Scott 2003. Poyser 0-7136-657X. Hardback £45

The Bewick's Swan Eileen Rees Illustrator Dafila Scott 2006. Poyser 0-7136-65559-9. Hardback £40

The Whooper Swan and the The Bewick's Swan, both Poyser monographs, are both illustrated by Dafila Scott, and both books, whilst selective in their material, are comprehensive and readable.



The author of the Whooper swan has been deliberately selective of his material, concentrating on the places he knows best: England, Scotland, Iceland, Sweden Finland, Japan and South Korea. He offers more details of vagrancy than usual, together with speculative material and conjecture to stimulate research, and I would hope, debate. He has also included a chapter on Swan Culture discussing swans in mythology, literature, art, taboo and symbolism. In an equally fascinating chapter 'Swans in sickness and Health' there is what may be a unique anecdote about an unfortunate Whooper in Japan which had a clam clamped to its lower bill. The author speculates as to which animal might have survived the longest !

Eileen Rees' 'Bewick's Swan' is similar in structure to The Whooper Swan, but is perhaps a slightly more intimate portrait of a species, due to her close association with the Wildfowl and Wetland Trust, and her personal recollections, which can be found throughout.

Jean Torrance

The Sound Approach to Birding (A Guide to Understanding Bird Sound). Mark Constantine and the Sound Approach. 2006. The Sound Approach. ISBN: 90-810933-1-2 (hardback) £29.95

Successful bird identification depends on a disciplined approach to the observation of the various features of the target bird, both large scale (size, shape) and small scale (leg and bill length and colour, etc). Good field guides such as 'Collins' provide useful descriptions of discriminating features as well as high quality example illustrations. The Sound Approach to Birding applies the same principles to identification by ear, and teaches the structure of bird sound using a combination of sonograms and example calls and song. The product comprises a landscape format book and two high quality CDs. My initial impression, that sonogram interpretation would be laborious, was rapidly dispelled when I started to go through the book and examples. It was surprising that a collection of seemingly unintelligible lines and patterns could resolve themselves into something comprehensible, with appropriate tuition!

The book is divided into ten chapters. The first two ease the reader into the concept of sonic structure by illustrating the large scale features of bird sound - tone / timbre, pitch / frequency and rhythm / timing. This is followed by the use of 'simple' song to illustrate timing and harmonic sounds - the Common, Siberian and Iberian Chiffchaffs are used as examples. More complex sounds - gull long calls and woodpecker drumming - provide excellent examples of what detail can be dissected out when the sounds are listened to in a systematic manner. The sonograms give a good visual representation of pitch, rhythm, intensity and timing which helps the listener attune better to the birds' calls.

Subsequent chapters encourage the reader to think beyond the simple concepts of song and call, and to consider birds' vocal repertoire in more detail. Variations in the 'chick-a-dee' calls of the Tit family are used as examples of how these calls vary not only by species, but also according to situations such as alarm or threat. Similarly, recordings and sonograms of Common and Arctic Terns usefully show the differences between 'advertising' and 'long' calls.

Subsequent chapters provide illustrations of the impact of birds' age on song and call. The concept of 'plastic song' is introduced - the ability of birds to adapt or modify song at different times of year. The author emphasises that, for many species, singing is not the sole domain of males, and some examples of inter-sex differences in call and song are provided. Chapter 8 ('Twitching and taxonomy') describes in some detail how song and call can be integral components of species and subspecies definitions. (Constantine opens the book with the following 'It's frustrating to read long-winded disputes about the identity of a particular rarity on the internet, with numerous photographs to look at, when a sound recording would have settled the matter in a moment'.) Chapter 9 tackles the sensitive issue of playback / luring. The concluding chapter echoes chapter 8, and shows how sonogram analysis has been practically applied to help define differences between Northern and European Bullfinch subspecies.

The Sound Approach to Birding is beautifully presented, the sound recordings are crystal clear (and best listened to using headphones), and the content is interesting, entertaining and original. This product is strongly recommended to any birder wishing to enhance their understanding of bird calls and song.

Neil Grubb

SMITHSONIAN INSTITUTION LIBRARIES
3 9088 01387 6024

ISBN 0268-3199

Scottish Bird News

Scottish Bird News is the magazine of the SOC. It acts as a channel of communication for SOC members and disseminates information relevant to Scotland's birdlife. It is published four times a year in March, June, September and December. Articles and notices are welcomed and should be sent to the Editors at the address below no later than five weeks before publication. The views expressed are not necessarily the policy of the SOC. Contributors should note that material has to be edited, often at short notice, and it is not practical to let authors see these changes in advance of publication.

**The Scottish Ornithologists' Club,
The Scottish Birdwatching Resource Centre, Waterston House, Aberlady, East Lothian EH32 0PY.
Tel: 01875 871330
Fax: 01875 871035
E-mail: mail@the-soc.org.uk**

The Scottish Ornithologists' Club (SOC) was established by a group of Scottish ornithologists who met together in the rooms of the Royal Scottish Geographical Society in Edinburgh on 24th March 1936.

The Club now has 2200 members and 14 branches around Scotland. It plays a central role in Scottish birdwatching, bringing together amateur birdwatchers, keen birders and research ornithologists with the aims of documenting, studying and, not least, enjoying Scotland's varied birdlife. Above all, the SOC is a club, relying heavily on keen volunteers and the support of its membership.

Headquarters provide central publications and an annual conference, and houses the Waterston Library, the most comprehensive library of bird literature in Scotland. The network of branches, which meet in Aberdeen, Ayr, the Borders, Dumfries, Dundee, Edinburgh, Glasgow, Inverness, New Galloway, Orkney, St Andrews, Stirling, Stranraer and Thurso, organise field meetings, a winter programme of talks and social events.

The SOC also supports the Local Recorders' Network and the Scottish Birds Records Committee. The latter maintains the 'official' Scottish List on behalf of the Club. The Club supports research and survey work through its Research Grants.

The Club maintains a regularly-updated web site, which not only contains much information about the Club, but is also the key source of information about birds and birdwatching in Scotland. SOC is a registered Scottish charity (no SC 009859).

www.the-soc.org.uk

***Passwords to access members' web pages on the new SOC web site:
'Common' & 'Quail'***